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PROPOSED FISCAL YEAR 1988 BUDGET REQUEST
(Department of Energy)

HEARING

BEFORE THE

COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

FIRST SESSION

TO REVIEW THE PRESIDENT'S PROPOSED BUDGET FOR FISCAL YEAR 1988 IN CONNECTION WITH THE PREPARATION OF THE FEBRUARY 25 REPORT TO THE SENATE BUDGET COMMITTEE

FEBRUARY 18, 1987

Printed for the use of the
Committee on Energy and Natural Resources

U.S. GOVERNMENT PRINTING OFFICE
74-240 WASHINGTON : 1987

For sale by the Superintendent of Documents, Congressional Sales Office
U.S. Government Printing Office, Washington, DC 20402

S311-45

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PROPOSED FISCAL YEAR 1988 BUDGET REQUEST

(Department of Energy)

WEDNESDAY, FEBRUARY 18, 1987

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The committee met, pursuant to notice, at 2:30 p.m., in room SD-366, Dirksen Senate Office Building, Hon. J. Bennett Johnston, Chairman, presiding.

OPENING STATEMENT OF HON. J. BENNETT JOHNSTON, A U.S. SENATOR FROM THE STATE OF LOUISIANA

The CHAIRMAN. The Committee will come to order.

Today we are going to be hearing on the President's proposed fiscal year 1988 budget for the Department of Energy, and we are very pleased to welcome our good friend, the Honorable John Herrington, Secretary of Energy.

Secretary Herrington, welcome.

[Statements submitted for the record by Senator Bingaman and Senator McClure follow:]

STATEMENT BY SENATOR JEFF BINGAMAN
FISCAL YEAR 1988 PROPOSED BUDGET FOR THE DEPARTMENT OF ENERGY
February 18, 1987

I thank the Chairman for holding this oversight hearing on the proposed fiscal year 1988 budget for the Department of Energy. This hearing offers the Committee an excellent opportunity to examine the budget priorities set by this Administration to meet our future energy needs.

As I have stated many times before on this Committee, I think the Administration has turned its back on one of the most important and strategic domestic industries in our country -- the oil and gas industry. This budget offers little hope to those who would expect to see the Federal Government assume a meaningful role in combatting the looming energy crisis before us.

I will do everything in my power to make sure the Congress accepts the responsibility to construct a meaningful national energy policy that benefits and protects all of our citizens.

I have some specific issues that I will address in my questions to the Secretary.

OPENING STATEMENT
SENATOR JAMES A. McCLURE (R-ID)
COMMITTEE ON ENERGY AND NATURAL RESOURCES
WEDNESDAY, FEBRUARY 18, 1987

HEARING ON FY 1988 BUDGET REQUEST FOR THE DEPARTMENT OF ENERGY

MR. CHAIRMAN, I WOULD LIKE TO MAKE A BRIEF STATEMENT BEFORE WE HEAR FROM SECRETARY HERRINGTON.

THERE ARE DIFFERENCES OF OPINION ON WHICH DEPARTMENT OF ENERGY PROGRAMS SHOULD BE EMPHASIZED. AS EXPECTED, THE FISCAL YEAR 1988 BUDGET REFLECTS MANY OF THE ADMINISTRATION'S PRIOR PROPOSALS THAT THE CONGRESS, AND I BELIEVE THE AMERICAN PEOPLE, HAVE REPEATEDLY REJECTED.

IN OTHER INSTANCES, PREVIOUS BUDGET PROPOSALS HAVE YET TO BE TRANSMITTED TO THE CONGRESS. FOR EXAMPLE, ONCE AGAIN THE ADMINISTRATION PROPOSES THE PRIVATIZATION OF FEDERAL URANIUM ENRICHMENT ACTIVITIES. HOWEVER, PRESS REPORTS INDICATE THAT THERE IS DISAGREEMENT WITHIN THE DEPARTMENT ON HOW THIS IS TO BE ACCOMPLISHED, IF AT ALL. NEVERTHELESS, THE CONGRESS HAS YET TO RECEIVE A SPECIFIC LEGISLATIVE PROPOSAL.

I CONTINUE TO SUPPORT FISCAL RESTRAINT, BUT I ALSO BELIEVE THAT WE MUST NOT MORTGAGE OUR ENERGY AND ECONOMIC FUTURE. I THUS CONTINUE TO BE DISTURBED BY THE CONTINUING RESTRUCTURING OF THE DEPARTMENT TO PLACE GREATER EMPHASIS ON PROGRAMS WITHOUT A DIRECT CONNECTION TO ENERGY, SUCH AS DEFENSE AND BASIC SCIENCE PROGRAMS. FOR EXAMPLE, FY88 DEFENSE PROGRAMS ARE UP 6 PERCENT AND GENERAL SCIENCE AND RESEARCH IS UP 13 PERCENT.

SINCE THE FY88 BUDGET WAS TRANSMITTED TO THE CONGRESS, THE ADMINISTRATION ALSO HAS ANNOUNCED ITS INTENTION TO PROCEED WITH A

Superconducting Super Collider at a total estimated cost of $4.5 billion. I understand the scientific significance of such a collider and fully support its construction. Nevertheless, Congressional support for this important project must be determined on the merits of the project itself. Support for such basic science programs must not be an alternative to other ongoing energy research and development programs. This is particularly important at this time when the landscape is strewn with the evidence that our future energy security is being eroded by cheap foreign oil imports.

Recently this Committee conducted hearings on implementation of the Nuclear Waste Policy Act. At that time, I questioned the Administration's authority to modify the Act's statutory mandate by means of a Mission Plan amendment. Therefore, I disagree with the suggestion in the Department's nuclear waste budget justification that if the Congress appropriates greater than $500 million the Department intends to proceed with implementation of its Mission Plan amendment. Regardless of how much money the Congress appropriates, the Department is bound by current law until specifically amended by the Congress.

In concluding, I must observe that last year the Congress sought to recoup and deposit in the Federal Treasury the Federal share of petroleum overcharge funds under the so-called Stripper Well Settlement Agreement. The Omnibus Budget Reconciliation Act of 1986 (Public Law 99-500) provided that indirect restitution would be provided by a 50-50 distribution of certain funds between the Federal Government and the States. The Congress

INTENDED THAT INDIRECT RESTITUTION BE PROVIDED FOR BY DEPOSITING SUCH FUNDS IN THE FEDERAL TREASURY TO REDUCT THE FEDERAL DEFICIT.

THE CORNERSTONE OF THIS POLICY WAS THE SIGNIFICANT AMOUNT OF FUNDS EXPECTED TO REMAIN AFTER DIRECT RESTITUTION, BECAUSE OF THE DIFFICULTY THAT USERS AND CONSUMERS HAD HAD IN DEMONSTRATING DIRECT INJURY BY ALLEGED VIOLATIONS. IN ORDER TO RESOLVE THIS SITUATION, THE FEDERAL GOVERNMENT AND THE STATES AGREED TO THE SETTLEMENT AGREEMENT FOR THE DISTRIBUTION OF THE EXPECTED BILLIONS OF DOLLARS OF EXCESS FUNDS REMAINING AFTER RESTITUTION OF "DEMONSTRATED" DIRECT INJURY. THE CONGRESS THEN RATIFIED SUCH A DISTRIBUTION. THEREFORE, I AM CONCERNED FOR THE ACTIONS OF YOUR OFFICE OF HEARING AND APPEALS IN TWO REGARDS:

FIRST, OHA PROPOSES TO CHANGE THE STANDARD FOR DIRECT RESTITUTION FROM ONE OF "DEMONSTRATED INJURY" TO ONE OF "PRESUMED INJURY." THIS CHANGE IN POLICY, WHICH WOULD BE CONTRARY TO CONGRESSIONAL INTENT, COULD DENY THE FEDERAL TREASURY OF HUNDREDS OF MILLIONS OF DOLLARS OF PETROLEUM OVERCHARGE FUNDS THAT WERE PROVIDED FOR IN PUBLIC LAW 99-500.

SECOND, THE CONGRESS INTENDED THAT THERE BE AN EARLY DISTRIBUTION TO THE FEDERAL GOVERNMENT AND THE STATES OF SUCH EXCESS FUNDS. HOWEVER, NO DISBURSEMENTS HAVE BEEN MADE BY THE OFFICE SINCE ITS INITIAL DISBURSEMENT IN AUGUST 1986, ALTHOUGH THERE NOW ARE OVER $400 MILLION OF ESCROWED FUNDS AVAILABLE FOR DISTRIBUTION, OF WHICH AN ESTIMATED $300 MILLION WOULD GO TO THE U.S. TREASURY UNDER THE SETTLEMENT AGREEMENT.

I EXPECT TO EXPLORE THIS MATTER FURTHER IN QUESTIONING.

THANK YOU, MR. CHAIRMAN.

STATEMENT OF HON. JOHN S. HERRINGTON, SECRETARY OF ENERGY

Secretary HERRINGTON. Thank you, Mr. Chairman.

Would you like me to make my statement? I will make it very brief, Mr. Chairman. I would like to submit a full statement for the record if I could.

First of all, I appreciate the opportunity to present this fiscal year 1988 budget before this Committee. There are two important objectives I would like to get to. One, I think this budget continues to give strong support to the essential programs in the Department in our energy science and defense areas; and two, I think it contributes substantially to the President's efforts to reduce the growth in the Federal budget and meet the Gramm-Rudman-Hollings deficit reduction goals.

The 1988 budget meets our increasing national security requirements and maintains our commitments to priority programs, such as basic energy and science research, environment, and safety. The fiscal year 1988 budget of $13.9 billion supports a level of program activity which is essentially unchanged from 1987.

However, the request for new budget authority is higher in FY 1988 because the funds that we carried over from prior years are much less than they were in FY 1987. The budget reflects recurring priority policy themes of this Administration:

One, confine Federal support to activities that are properly the responsibility of the Federal government;

Two, improve technology transfer and obtain meaningful cost-sharing; and

Three, divest assets which can be better managed by non-Federal entities.

Our budget reflects the Administration's strong support for frontier research and its commitment to maintain and strengthen the Nation's scientific leadership and technological competitiveness.

I think the most dramatic evidence of this commitment is President Reagan's recent decision that he will support the construction of the Superconducting Super Collider. This decision ensures that the United States will retain world leadership in high energy physics well into the next century.

The site selection process which was announced February 10th should lead to a final site selection in January 1989. The target completion date is 1996.

Other major projects contributing to these research efforts include the Continuous Electron Beam Accelerator Facility (CEBAF), in the nuclear physics program, and the Compact Ignition Tokamak at Princeton University. The budget request for general science appropriation which supports the SSC, CEBAF, and other major high-tech research facilities is $815 million. This is a 13 percent increase over the fiscal year 1987 funding level.

The budget also continues our strong commitment to effective safeguards and security at our facilities.

Mitigating the acid rain problem is another major area of effort, and an initiative which will receive increased emphasis is our effort to find ways to burn coal more cleanly. In addition to a number of advanced techniques being studied in the fossil energy research and development budget, we are proposing to increase our clean coal technology activities by drawing on funds in the clean coal reserve to investigate promising retrofit, repowering, and modernization technologies.

Last August the President reaffirmed his commitment to a 750 million barrel Strategic Petroleum Reserve. We reaffirm that commitment in this budget, but we are proposing to change the rate of fill in FY 1988 from the present mandated 75,000 barrels a day to the previous 35,000 barrels a day level. Language submitted with this budget would authorize this fill rate without jeopardizing the Government's ability to continue producing oil at the Naval Petroleum Reserves.

At the beginning of fiscal year 1988, we will have 534 million barrels of oil in storage, which is in addition to the millions of barrels of oil held by other nations and the private sector. The difference between filling at 35,000 barrels a day and 75,000 barrels a day in fiscal year 1988 is only a minimal increase in the level of protection, secured at an estimated additional cost of $225 million in fiscal year 1988 outlays. The benefit is not worth the cost in our present fiscal situation.

The Department is renewing its efforts to divest activities which are more appropriately managed by non-Federal entities. In particular, we are proposing legislation authorizing the sale of Federal interest in the Naval Petroleum Reserves 1 and 3, and legislation authorizing a study of divestiture of the Southeastern Power Administration. Also, we will continue planning activities for the sale of the Alaska Power Administration.

For budget purposes, it is assumed that the NPR's will be sold in 1988 for $3.3 billion, with $2.5 billion received in fiscal year 1988 and $.8 billion in fiscal year 1988. However, the fiscal year 1988 budget contains a full year's funding for the NPR's. The two PMA's are assumed to be sold in fiscal year 1989.

Another initiative affecting the PMA's is the repayment reform. The objective is to have debt repayment proceed on a proper business-like basis. While this initiative will not affect the level of Federal funding in support of the PMA's, it will assure the repayment of the Federal investment in PMA facilities on a timely, stable, and predictable basis. Repayment reform will not increase interest costs or the total Federal investment to be repaid.

At this point, I would like to discuss budgets for selected program areas. First, fiscal year 1988 budget requests for fossil, energy conservation research and development, and solar and other renewables are consistent with our fiscal year 1987 request. We believe that adequate funds are being directed to the highest priority activities and that the private sector can and should provide financial support for projects involving proprietary product or process development.

We are proposing to limit conservation grant funding to the $134 million derived from escrow funds for petroleum product overcharges. The states have received almost $3 billion in the last two years in settlement of oil pricing and allocation violations, and we see no need for additional funding.

The budget request for nuclear waste disposal in fiscal year 1988 is $500 million. That is consistent with funding levels provided in fiscal year 1986 and 1987. However, as I testified a week ago, a draft mission plan amendment and a detailed budget supporting a $725 million program in fiscal year 1988 have been prepared.

Following a review by Congress, a budget amendment will be submitted for the $725 million. We recognize that there are particular areas of Congressional concern in this program. It is our hope that the amendment to the mission plan will provide a suitable vehicle for Congress to provide any direction it believes is needed for conduct of the program.

The fiscal year 1988 budget request for the Atomic Energy Defense Activities appropriation account is $8.1 billion. In fiscal year 1989 the request is $8.5 billion. The two-year budget was submitted for this account as required by authorization legislation. The growth in this account averages three percent for each year over the fiscal year 1987 level plus inflation. SDI funding increases from $349 million in fiscal year 1987, which includes $32 million of prior year funds, to $481 million in fiscal year 1988.

The major emphasis in the uranium enrichment program in fiscal year 1988 is to reduce the cost of operation of the Gaseous Diffusion Plants (GDP's) so that the Department's enrichment services become competitive in the world market.

Through 1988, DOE's inventory of enriched uranium will continue to be drawn down so that customer delivery requirements can be met at minimum production costs.

The Department is requesting no funding for the atomic vapor laser isotope separation process in fiscal year 1988 and will continue to pursue the possible divestiture of the uranium enrichment enterprise.

Mr. Chairman, I believe this budget I have summarized meets the Department's responsibilities in a manner which recognizes today's fiscal imperatives and tomorrow's anticipated needs.

I would be pleased to answer any questions. Thank you for your time.

[The prepared statement of Secretary Herrington follows:]

STATEMENT OF

JOHN S. HERRINGTON
SECRETARY OF ENERGY

before the

COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

FEBRUARY 18, 1987

Statement of John S. Herrington
Secretary of Energy
FY 1988 Budget

Mr. Chairman and Members of the Committee, I appreciate the opportunity to present the FY 1988 budget for the Department of Energy. This budget was carefully developed to meet two objectives:

- continue to provide strong and effective financial support to essential programs in the Department's energy, science, and defense mission areas, and

- contribute to the overall Federal obligation to limit growth in the Federal budget and reduce the deficit.

We have achieved these objectives in this budget. The FY 1988 budget meets our increasing national security requirements, and maintains, and even deepens, our commitment to priority programs identified in past years, such as basic energy and science research, environment, safety and health, safeguards and security, and clean coal technology development. At the same time, the budget contributes strongly to the deficit reductions the law--and the American people--demand.

Before discussing details of the budget itself, I would like to describe the Department's policy and budget initiatives.

POLICY AND BUDGET INITIATIVES

The FY 1988 budget reflects certain recurring policy themes of this Administration which we strongly believe to be proper guidelines for responsible fiscal management of the Department of Energy. These include confining our support to those essential activities which are properly the responsibility of the Federal government, and withdrawing from activities where the justification for a Federal role is weak. In budget terms, this means several things: a continued emphasis on removing certain activities from Federal ownership and control and selling these assets to non-Federal entities; a rigorous drive to eliminate improper Federal subsidies for programs and projects which the private sector should be responsible for supporting; and further efforts to improve technology transfer and to secure meaningful cost sharing with private sector technology sponsors.

Programs where the justification for the Federal role is strong and clear are amply supported in this budget. These include such energy and science research areas as biological and environmental research, materials and chemical sciences, and high energy and nuclear physics, as well as our essential National defense activities. The strong commitment to these areas of research is part of a major Administration initiative to maintain and strengthen the Nation's scientific leadership and technological competitiveness. The most dramatic evidence of this commitment is the recent decision by President Reagan to support construction of the world's largest and most advanced particle accelerator, the Superconducting Super Collider. This decision ensures that the United States will retain world leadership in high energy physics. Other major projects supported in this budget that will facilitate frontier research efforts include the Continuous Electron Beam Accelerator Facility in the nuclear physics program and the Compact Ignition Tokamak in the magnetic fusion energy program.

The budget continues the major effort we began in 1985 to assure a standard of excellence at our facilities by addressing and correcting past safety and environmental problems while simultaneously seeking to prevent current and future violations of safety and environmental standards. The Department's commitment to effective safeguards and security at our facilities also continues to receive strong support.

The Department is applying substantial resources to solving the acid rain problem. A major environmental initiative which will receive increased emphasis is our effort to find ways to burn coal more cleanly. In addition to a number of advanced techniques being studied in our core fossil energy research and development budget, we are proposing to increase our Clean Coal Technology activities by drawing on funds in the Clean Coal Reserve budget account to investigate promising retrofit, repowering and modernization technologies.

Another significant proposal in the Department's FY 1988 budget concerns the Strategic Petroleum Reserve (SPR). At the end of FY 1987 the SPR will hold 534 million barrels of crude oil, in addition to the millions of barrels of stocks held by other nations and the private sector. Our budget proposes to return the fill rate from the present 75,000 barrels per day (BPD) to the previously mandated level of 35,000 BPD while permitting continued production from the Naval Petroleum Reserves. The difference between filling at 75,000 and 35,000 BPD in FY 1988 is only a minimal increase in protection secured at an estimated cost of approximately $225 million in additional FY 1988 outlays. In a time of fiscal constraint, it is our belief that the benefit is not worth the additional cost.

The Department is renewing its efforts to divest activities which are more appropriately managed by non-Federal entities. In particular, we are proposing legislation authorizing the sale of the Federal interest in Naval Petroleum Reserves (NPR) 1 and 3, and legislation authorizing a study of the feasibility of divestiture of the Southeastern Power Administration. Also, we will continue planning activities for the sale of the Alaska Power Administration. Neither the utility functions of the Power Marketing Administrations (PMAs) nor the oil field operations of the NPRs are fundamentally Federal in nature, and non-Federal entities could perform the same services with equal or greater efficiency.

For budgetary purposes, it is assumed that the two NPRs will be sold in FY 1988 for $3.3 billion, with $2.5 billion received in FY 1988 and $0.8 billion in FY 1989. Of course, the actual sales price will be determined by the competitive market. While the sales process is proceeding the FY 1988 budget proposes full funding for operation of the NPRs. The two PMAs are assumed to be sold in FY 1989. We will be working cooperatively with the Congress and in consultation with current PMA customers, and no implementation of PMA divestiture will occur until after subsequent Congressional review and approval.

Another initiative affecting the PMAs is repayment reform. Legislation will be proposed to ensure that repayment of the Federal investment in these facilities will proceed on a fixed amortization schedule as long as the PMAs remain under Federal control. While this initiative will not affect the level of Federal funding in support of the PMAs, it will assure that repayment of the Federal investment will occur on a timely, stable, and predictable basis.

With this as introduction, I will turn now to the FY 1988 budget request.

FY 1988 BUDGET SUMMARY

The FY 1988 budget for the Department of Energy is $13.9 billion. This budget supports a level of overall program activity which is essentially unchanged from FY 1987, but the request for new budget authority is higher. This is because in FY 1987 our programs benefit from substantial amounts of funds carried over from prior years, including approximately $690 million made available to nuclear and non-nuclear technologies in the Energy Supply Research and Development appropriation account.

At this point, I would like to discuss the budgets for selected program areas.

GENERAL SCIENCE

The budget request for the General Science appropriation of approximately $815 million is a 13 percent increase over the FY 1987 funding level. This sizeable increase reflects the Administration's belief that the key to maintaining the Nation's competitive edge in an increasingly technological world includes expanded support for frontier research. The programs that comprise the General Science appropriation, High Energy Physics and Nuclear Physics, aim at improving our understanding of the fundamental nature of matter and energy. Powerful accelerators and other advanced research facilities are required to carry out this research. The substantial increase in this appropriation is due mainly to higher funding proposed for research and development and the use of new accelerators and experimental facilities, plus construction funding for the Continuous Electron Beam Accelerator Facility in Newport News, Virginia.

The highlight of the High Energy Physics program budget request is the proposed Superconducting Super Collider (SSC) project. With an energy level 20 times greater than currently available anywhere in the world, the SSC will probe deeply into the fundamental building blocks of matter. The total project cost of the Super Collider, with its racetrack-shaped tunnel 52 miles in circumference, is $4.4 billion in FY 1988 dollars. This includes the cost of detectors, computers, and preoperation expenses, as well as construction of the facility and the approximately 10 thousand superconducting magnets used to guide the protons into head-on collisions. In FY 1988, $35 million is requested for the SSC, which includes $10 million for construction activities and $25 million for research and development.

ENVIRONMENT

One of my highest priorities has been to upgrade the environment, safety and health activities of the Department of Energy. I wish to ensure that our facilities comply with all applicable environmental statutes and regulations, and that the health and safety of the public, our employees, and our contractors is protected. The budget for the Environment, Safety and Health program is $70 million, which represents a 13 percent increase over the FY 1987 level. A significant part of that funding increase will be applied to continuing the

Environmental Survey and the Technical Safety Appraisals of the Department's facilities. These programs are designed to identify and prioritize environmental problems and areas of risk so that corrective actions might be carried out most effectively.

Another environmental program which shows significant growth is Biological and Environmental Research. The budget request of $218 million in FY 1988 is 12 percent above the FY 1987 level. This program makes use of the Department's unique capabilities in the life sciences to identify and assess the long-term health effects and environmental consequences of energy development and use. A significantly increased radon research program is included, as is an enhanced effort to better understand the structure and function of genes. Research on the "greenhouse effect" is also supported in this program.

CLEAN COAL TECHNOLOGY

A major initiative in this budget is the significant expansion of the Clean Coal Technology program, which is designed to support demonstrations of technologies that show promise for burning coal cleanly. Our ability to make full use of our vast coal reserves depends in large part on being able to use coal in a manner that is both environmentally acceptable and economically viable.

The present three-year program envisions the Department proceeding with nine projects selected last summer for negotiation of cooperative agreements. It makes use of $396 million in previously appropriated funds. In FY 1988, the Department is proposing to begin applying the remaining $350 million in the Clean Coal Technology Reserve, starting with an additional $50 million in FY 1988. An advance appropriation of $100 million in FY 1989 is also requested.

Two additional competitive rounds of demonstration projects are planned in the 1988-1992 timeframe. Technologies which can retrofit, modernize, or repower existing coal burning facilities would be eligible for consideration in both rounds. These demonstrations would be targeted closely to recommendations in the Joint Report of the Special Envoys on Acid Rain. A feature of the Clean Coal Technology program is that the industrial sponsors of the technology must provide at least 50 percent cost-sharing.

NUCLEAR ENERGY

Research and development activities in support of nuclear energy technologies are funded at $336 million, slightly above the FY 1987 level of activity. The program mix includes a balanced research and development program for both civilian nuclear power and space and defense nuclear energy sources. The emphasis begun in FY 1987 on Space and Defense Power Systems continues. Its budget doubles in FY 1988, primarily as a result of the increase for the design and construction phase of the Ground Engineering System for the SP-100 space reactor power system.

Support for civilian nuclear power continues in the Light Water Reactor and Advanced Reactor Research and Development programs. Research on fuel cycle improvements and on advanced concepts as alternatives to current power reactor systems will be focussed more sharply, with emphasis in FY 1988 on modular reactor systems that offer passive safety features and the potential for improved economic performance. An international program in support of the high-temperature gas reactor will also be conducted.

MAGNETIC FUSION

The budget for Magnetic Fusion is $346 million. Although the funding profile is essentially level, continued progress is expected in FY 1988 in this program. The principal new initiative will be the start of construction of the Compact Ignition Tokomak at Princeton University. The device is designed to prove that a plasma can be ignited and burn without continuous external heating.

BASIC ENERGY SCIENCES

The Basic Energy Sciences program performs generic, long-range research in support of both nuclear and non-nuclear technologies. Research efforts involve the physical and biological sciences, engineering, applied mathematics, and geosciences. In FY 1988, higher funding is proposed for the highest priority research areas and to maintain the level of operations in the Department's major facilities at the Argonne, Brookhaven, Los Alamos, and Oak Ridge National Laboratories and the Stanford Synchrotron Radiation Laboratory. The FY 1988 budget request of $479 million is below the FY 1987 appropriated level, but the Department is proposing FY 1987 rescissions of approximately $62 million for certain university projects which do not further the Department's primary research goals.

FOSSIL, CONSERVATION, AND SOLAR AND OTHER RENEWABLES

The FY 1988 budget requests for Fossil Energy, Conservation Research and Development, and Solar and Other Renewables are consistent with our FY 1987 request but well below the appropriated levels. It is the Department's firm belief that Federal funds must be directed only at the highest priority research and development needs where funding support from industry cannot reasonably be expected. We believe that the private sector can, and should, provide financial support for projects involving proprietary product or process development. Consequently, FY 1987 rescissions totaling approximately $76 million are being proposed to eliminate inappropriate Federal subsidies and better align the FY 1987 programs with the FY 1988 requests.

Of the $169 million proposed for Fossil Energy Research and Development, $109 million is directed towards coal research. The major thrust is in acid rain-related technologies, primarily in the control technology and coal preparation and the combustion systems program areas. High priority research efforts will also be continued in petroleum and unconventional natural gas recovery.

Conservation has made important contributions to the Nation's improved energy posture. The emphasis of energy conservation research and development is to assist the private sector by conducting research targeted at expanding the technology base upon which industry can draw in developing new products and processes for the marketplace.

The budget for Conservation Research and Development is $80 million, divided principally among the Industry ($16 million), Transportation ($22 million), and Buildings and Community Systems ($15 million) end-user program areas; and the Multisector program ($20 million), which supports crosscutting research and development in such areas as combustion and thermal sciences, materials sciences, biocatalysis, and tribology.

The focus of the Solar and Other Renewables energy program is on supporting research and development that will strengthen the technology base on which industry can draw in developing new products and processes for the commercial market.

The budget for Solar and Other Renewables is $94 million, and is focussed primarily on Solar Energy ($71 million) and Geothermal ($16 million) technologies. Within Solar Energy, the principal program components are photovoltaics, solar thermal, and biofuels energy systems. Cost sharing and technology transfer is actively being pursued in each area.

The Fossil Energy, Conservation, and Solar program areas are all participating in the Cooperative Research and Development Venture initiative, which is currently in the exploratory stages. This innovative effort seeks to make it easier for competing companies to pool their research and development efforts in pre-competitive areas, with the Federal government joining these industry consortia as a minority partner. The base technology developed in this way will become an input to each partner's own proprietary product and process developments. In addition to the benefits to the taxpayer from the substantial level of industry cost sharing, technology transfer should be much improved by having the companies expected to exploit and deploy the technologies involved in the research from the beginning.

In FY 1988, $17 million will be proposed for these ventures; $7 million for Fossil Energy and $5 million each for Conservation and Solar. The President's budget does not yet include these figures; they will go forward as a budget amendment as soon as consultations with industry groups are concluded. At the present time, it appears that likely technology candidates for the cooperative venture program include, but are not limited to, extraction and coal utilization technologies in Fossil Energy; steel, papermaking, building materials, and high-temperature ceramics in Conservation; and photovoltaic and geothermal technology development in Solar and Other Renewables.

WASTE ACTIVITIES

Safe storage, handling, and disposal of civilian and defense nuclear waste and cleanup of contaminated facilities has long been a major priority of the Department of Energy. The Department of Energy's nuclear waste programs are managed by the Defense Programs, Nuclear Energy, and Civilian Radioactive Waste Management offices. In FY 1988, almost $1.6 billion is requested for waste activities, an increase of $113 million from the FY 1987 level.

The largest funding component, $811 million, is for Defense Waste Management, which shows significant growth over FY 1987. Major increases are proposed for the Defense Waste Processing Facility at the Savannah River Plant in South Carolina and the Waste Isolation Pilot Plant in New Mexico, which are scheduled to become operational in the FY 1989-1990 time frame. The budget also provides for initiation of the Waste Vitrification facility at the Hanford, Washington site.

The purpose of activities conducted under the Nuclear Waste Disposal Fund program, managed by the Office of Civilian Radioactive Waste Management, is to provide for the permanent and safe disposal of spent nuclear fuel and high-level radioactive waste. The budget request for FY 1988 is $500 million, which is consistent with the funding levels provided in fiscal years 1986 and 1987. However, an amendment to the program's Mission Plan and a detailed budget supporting a $725 million program in FY 1988 have been prepared. Following review by Congress, a budget amendment will be submitted for the $725 million program necessary to carry out the schedule described in the Mission Plan amendment. It is our hope that the amendment to the Mission Plan will provide a suitable vehicle for Congress to provide direction it believes is needed for conduct of the program.

The other major element within the waste activities category is the Remedial Action program in the Nuclear Energy organization, which is concerned with waste stabilization, decontamination, and decommissioning of various Federal and legislatively mandated non-Federal facilities and sites. After a number of years of rapid growth as new sites were identified, site surveys were completed, and environmental mitigation efforts begun, the FY 1988 budget of $252 million maintains an effective program of cleanup activities at existing sites.

DEFENSE ACTIVITIES

The FY 1988 budget request for the Atomic Energy Defense Activities appropriation account is $8.1 billion. In FY 1989, the request is $8.5 billion. Excluding the effect of anticipated inflation, the growth in this account averages 3 percent each year over the FY 1987 level.

The FY 1988 budget includes $0.8 billion for Defense Waste Management, as discussed above. It also includes $2.1 billion for Weapons Research, Development, and Testing; $2.4 billion for Weapons Production; $1.9 billion for production of special nuclear materials; and $0.6 billion for Naval Reactors Development, and $0.2 billion for other defense activities.

The Weapons Research, Development, and Testing budget increases in FY 1988, due in part to significantly increased funding in support of the Strategic Defense Initiative (SDI). SDI funding increases from $349 million in FY 1987, which includes $32 million of prior year funds, to $481 million in FY 1988.

Weapons Production and Materials Production show only modest increases over the previous budget levels. The Department's defense production activities respond directly to the requirements of the Defense Department. The FY 1988 budget assumes delivery of six different nuclear weapons systems, and the beginning of pre-production construction activity for the Small Intercontinental Ballistic Missile warhead. The Materials Production budget assumes operation of the production reactors at the Savannah River facility in South Carolina, and a full year of normal operation for the N-Reactor at Hanford, Washington, which is currently in a stand-down status for safety improvements.

STRATEGIC PETROLEUM RESERVE

The budget for the Strategic Petroleum Reserve (SPR) is $270 million; $142 million for facilities development and management and $128 million for oil acquisition and transportation. The facilities funds will be used to continue operation and maintenance of the Reserve and permit continuation of activities to improve the system's drawdown capability. Construction activities at the Bayou Choctaw and Big Hill sites will be completed during FY 1988 using funding from prior years.

The oil acquisition funding request will permit an FY 1988 fill rate of 35,000 barrels per day (BPD). The budget includes appropriation language proposing this fill rate in lieu of the currently mandated rate of 75,000 BPD. Supporting authorization legislation also will be submitted shortly. The SPR will hold 534 million barrels of crude oil at the end of FY 1987. While the Administration remains committed to achieving a full 750 million barrel SPR, it believes that the pace for reaching that goal must be determined, in large part, by fiscal priorities. Adhering to the 75,000 BPD fill rate is estimated to increase FY 1988 outlays by about $225 million while having only a minimal effect on the level of protection offered by the SPR.

URANIUM ENRICHMENT

The major emphasis in the Uranium Enrichment program in FY 1988 is to reduce the cost of operation of the gaseous diffusion plants (GDPs), so that the Department's enrichment services become competitive in the world market. The budget request of $1.1 billion is almost 13 percent below the FY 1987 program level, and reflects further reductions in the production levels of the GDPs. Through 1988, DOE's inventory of enriched uranium will continue to be drawn down to enable the enterprise to meet customer delivery requirements at minimum production cost.

The Department is not requesting FY 1988 funding for the Atomic Vapor Laser Isotope Separation process, and will continue to pursue the possible divestiture of the Uranium Enrichment enterprise. In FY 1988, $231 million in excess revenues will accrue to the Treasury in partial repayment of the unrecovered government investment in enrichment facilities.

TWO-YEAR BUDGET

As a result of recently enacted Defense Authorization legislation, the Administration is submitting a two-year budget for all activities contained in Budget function 050 (Defense). Consequently, the Department of Energy is requesting funds for FY 1988 and FY 1989 for the Atomic Energy Defense Activities appropriation account. The average real growth in this account over the two year period is three percent per year.

FY 1987 RESCISSIONS

The Department is proposing a number of FY 1987 rescissions of budget authority for programs or projects which are not funded in the FY 1988 budget. The purpose of the rescissions is to realign the FY 1987 effort to better reflect our FY 1987 and FY 1988 budget recommendations, by withdrawing support for activities that do not further the Department's primary research goals. The total amount of the rescission proposals is approximately $257 million.

Mr. Chairman, I believe that the budget I have summarized meets the Department's responsibilities in its several mission areas in a manner that recognizes both today's fiscal imperatives and tomorrow's anticipated needs.

The CHAIRMAN. Thank you, Secretary Herrington.

I will not go into the SPRO. My views on that are well known. I think I strongly support really a billion barrel SPRO, certainly at 750 million barrels as an early goal. And for the Administration to say they are for it and then only fund 35,000 barrels a day is a contradiction in terms. But my view is well known on that, and your marching orders from OMB are well known, and so I will not make you jump through that hoop.

The same thing is true of the oil import fee. The Secretary of Interior was on the Today show or one of the morning shows this morning, said we were going to be in terrible gas lines and have these spurtups in price and shortages, which I totally agree with, some time, I think he said, two to five years. Nobody knows exactly when.

And the one thing that could really help on that is an oil import fee. But my view is very well known on that, and your orders from the Administration, as well as the orders to the Secretary of the Interior, are well known.

So we need not go through that either, except to say that I believe it even stronger today than the last time we talked.

Next, on this question of Star Wars funding, that part which is in your budget, can you tell me how much is in your budget for Star Wars, how much the increase is and what it does?

Secretary HERRINGTON. The funding for the SDI or the Strategic Defense Initiative goes up from $360 million to $417 million.

The CHAIRMAN. And do you know what that funds, what the experiments are?

Secretary HERRINGTON. Our particular area, which accounts for about ten percent of the national SDI program, is primarily the nuclear aspect of the SDI program. We do not fund anything other than that ten percent sector.

The CHAIRMAN. And that is basically the X-ray laser?

Secretary HERRINGTON. The Excalibur Project, the X-ray laser, is included in that total as is additional reseach on other nuclear directed energy weapon concepts. Also included is research and development of space nuclear systems.

The CHAIRMAN. For the record, I would like a five year projection of SDI funding that would be in your budget, and you can furnish that for the record.

[The material referred to follows:]

The Department of Energy's 5-year projections for SDI programs are shown below:

	Fiscal Year (millions)				
	1988	1989	1990	1991	1992
Defense Programs*	481	390	500-600	500-600	500-600
Nuclear Energy	88	157	183	166	185

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*FY 1989 to 1992 will be reviewed following final congressional action on the FY 1988 request.

These projected needs would support Nuclear Directed Energy Weapon research and the SP-100 reactor, Dynamic Isotope Power System, and Multimegawatt Space Reactor efforts.

The CHAIRMAN. Next, do I understand that the Department will proceed with the plans such as are required by law, which is the proceeding to find a second repository and to—not to build it, but those requirements of law that you now will proceed to do that unless there is a law to adopt the mission plan?

Secretary HERRINGTON. Well, I appreciate the opportunity to clarify that, because there was in my testimony two weeks ago in front of this Committee and then on the House side what was perceived as a discrepancy. I look at it as the same testimony. A different question was asked over there, and maybe I am being too technical.

The mission plan we put up here—and my intent has always been to have the mission plan approved by Congress, which I think I can realistically expect that Congress will act on the mission plan. That mission plan says that we defer a decision on the second repository to the mid-1990's.

The question was asked, I think, here and over there: What happens if Congress does nothing? Well, that is a very negative sign to our mission plan. A positive sign would be appropriation language or language from this Committee that says the mission plan is good and we approve it.

But if nothing is said, I do not think that we have the authority under the law, as you pointed out, to take unilateral action. I have been pretty clear on that since May, as long it was only timing that we were looking at.

The question was asked over on the House side: Well, if you went back to a second repository, could you go back as soon as next summer? And my answer was yes, because the report lays up here about 60 days. It will be up here very shortly, and it depends on when the appropriation process is finished and whether we are prohibited on the second site or not.

It is very reasonable that we could be back looking for this this summer and also no later than the end of the year, if no action is taken.

The CHAIRMAN. Well, I think you could tell from the testimony the other day, there is little inclination on the part of this Committee, or I can tell you of the Appropriations Subcommittees that deal with this, which I chair, to amend or to adopt the mission plan and to amend the requirements of the law with respect to a second repository.

I do not know of a single person on this Committee. There may be a single person somewhere. I do not think he is here today. [Laughter.]

I do not think there is anyone who would be for this. So I think you could safely proceed with it, with the assumption that there will be no amendment. And once you feel convinced of that, then you will proceed with the requirements of the law for this second repository?

Secretary HERRINGTON. Well, Mr. Chairman, I think we are proceeding—I know there is a difference of opinion on this, but I think we are proceeding under the law now. But I have always figured that if we do not get the approval for these innovations in the mission plan, that we need to go back to the original plan.

That has always been part of the plan as far as I am concerned.

The CHAIRMAN. Well, I think that is clear enough and I am not going to quibble with you as to whether you are obeying the law right now as long as you will very soon. [Laughter.]

Senator McClure.

Senator MCCLURE. You made reference to something that I do not want simply to gloss over. Your reference was that you think maybe all you have done in the Nuclear Waste Mission Plan Amendment is talk about variations in the timetable.

The law is very specific with respect to that timetable, so it seems to me that if in fact Congress wants you to live with the original timetable, you have to try to do that. Your earlier testimony has indicated that you think that timetable ought to be altered, and you have made certain proposals.

I would invite you to be even more specific with respect to what you believe should be done with respect to the timetables in the existing law.

I certainly do not want to indicate that I want to abandon the second repository. I certainly agree with Senator Johnston's statement that he does not know anybody who does, at least nobody who is here. I think that was his statement.

I would not want the record to indicate that I was not willing to look at the question of timetable, because that may be a very important question and the one I think your mission plan amendment surfaced more strongly than it did with respect to whether or not there should be a second repository.

If you have a specific proposal in addition to what you have already identified to us in the submission of the mission plan amendment and in your testimony, I would invite you to either give it now or submit it to us later so we can consider it to determine whether or not the law should be amended with respect to the timetable.

Secretary HERRINGTON. Senator McClure, I would make three points, and again, if more clarification is necessary.

Number one, we have never said that we should cancel the second repository. It has always been our understanding that was not within our option, period. We need to have a second repository according to law.

The two things I have asked for in the mission plan: one, I would like to slide site specific work on the second repository until the mid-1990's, and I have gone over the reasons several times.

The CHAIRMAN. Well, the answer to that from this Committee right now, I can tell you, is decidedly no, that the law requires you to proceed forthwith on that, and we are not going to amend the mission plan on that except as part of some overall plan to amend the whole nuclear waste program, and that has not been proposed as yet by anyone.

And until that is proposed and adopted, then we would expect the law to be adhered to, which is—and we are not going to quibble with whether you are doing that or not, because we want you to do what you are supposed to do. And we are not anxious to have you say mea culpa. All we are anxious for you to do is to proceed with that second repository until and unless the law is changed.

Secretary HERRINGTON. Well, I expect Congress to deliver me a strong message here by summer, at least from this Committee.

The CHAIRMAN. Why wait until summer?

Secretary HERRINGTON. Because I think you need to discuss this mission plan. I know the feeling of most of the people on this Committee, but we have some very reasonable proposals, I think, up here.

The final one I have not made is we would like you to consider sliding the 1989 date five years, because it is going to be very difficult to meet, the way we are progressing at this point.

Senator MCCLURE. What about the timetable on MRS?

Secretary HERRINGTON. MRS, as soon as the court allows us to, I would like to bring that proposal to the Hill.

Senator MCCLURE. You do not intend to slide that date?

Secretary HERRINGTON. No.

The CHAIRMAN. Really, MRS is sort of essential to slide your date five years, is it not?

Secretary HERRINGTON. MRS is absolutely critical to this whole plan. We have to move on MRS or the whole program is jeopardized, in my estimation.

Senator MCCLURE. Well, I for one am certainly willing to look at whether or not the timetables we established in the original statute are reasonable or unreasonable. I do not think any of us want you to delay the program.

Certainly I have not been persuaded that it is yet a wise decision to delay the program. But I do want to review the timetables in the context of what is achievable. I think all of us knew when we passed that statute in the first instance that the timetable was a very tough one.

We were dealing then with a sense of urgency which I think was very real throughout the country, and I for one wanted to make certain that we attempted to meet deadlines that looked like there were national objectives that required us to meet those deadlines on those dates.

If indeed the need for a repository, the need for interim storage, the relationship between the interim storage and the MRS, and the MRS and the permanent repositories, needs to be changed, I am willing to look at that and will do so.

The CHAIRMAN. Before we go on to something else, could I say a word? I forgot to mention, Mr. Secretary, on the Super Collider, let me make my position clear on that. I just wanted to make my position clear that I support the Super Collider, certainly if we can pay for it, and that has always been the question in my mind.

We can certainly pay for the initial funds, which are rather modest. Do you have any long term plan as to where the money is going to come from, other than from the deficit?

Secretary HERRINGTON. It has to be new money. You just simply cannot make those kind of cuts in our budget. You must have new money for that program.

The CHAIRMAN. New revenues, you mean?

Secretary HERRINGTON. I think the President is still very strong against taxes, and I do not think new revenues is something we are looking at. I think it has to come out of existing budgetary funds, and I think it probably can.

The question is not, "Can we afford it?" The question is, "Can we afford not to do it?" There can be a strong argument made that probably one out of every three commercial dollars in some areas of our industry comes out of knowledge of the atom.

There are some big benefits to this country to retain leadership in high energy physics.

Senator FORD. Mr. Chairman, I believe the sale of the Southeast Power and oil reserves comes out to the exact figure for the Super Collider. [Laughter.]

The CHAIRMAN. Senator McClure.

Senator MCCLURE. I wanted to get onto a slightly different subject. Senator Johnston earlier went through a brief description of the worsening oil situation without going into it in great detail.

I believe you know what the background discussion has been about the trends in production in this country, the trends towards increased imports, and the difficulty that the domestic industry has had with the prices that have been in effect over the last year.

In your opinion, does our worsening situation pose any threat to our nation's energy and economic security?

Secretary HERRINGTON. I think the answer is obviously yes. How much is going to be up to us to determine. We are coming out in March with a national security study that I think is going to be a very good technical base from which to have an open and free discussion on these issues. We do not intend that report to make recommendations.

We intend it to lay out all the options with a cost-benefit analysis. In other words, for an import fee, what do we get from an import fee, and then what does it cost us as a nation.

And I think that the report is large. It is over 400 pages. The statistical base from the industry and from the government seems to match now. There is a lot of effort. We have had over 250 inputs from people. The report should be a very credible report and should provide that forum, Senator McClure.

Senator McClure. Would it be a fair statement to say that the U.S. energy position with respect primarily to oil, not natural gas, colors our foreign policy?

Secretary Herrington. Yes.

Senator McClure. I would take your answer or your comment to my earlier question to be that you would really prefer that we wait until the study is released and the recommendations are ready to pursue further what the Administration may support with respect to a response?

Secretary Herrington. Well, again, I do not think it is our place, and I do not intend for us to make recommendations. I think we need to set the playing field with accurate information and through our statistical analysis in conjunction with industry say what each proposal to help this industry is going to cost and what is the benefit for the country. Then together we can move forward on debating what policies are most wise.

Senator McClure. I would suggest that, in conjunction with, not necessarily a part of, that analysis of the implications to our economic and military security, its impact on our foreign policy, that you might want to also consider, if you have the opportunity to do so in the Administration at the time that that report is sent to us and it is released to the public, that you also try to give us some idea of what the Administration believes is the appropriate way to go.

Even if you lay out some alternatives and you write them in order or something, that would give us some idea other than just the bare facts that you have gotten, what you believe the answers might be or which directions we might go.

Certainly I welcome the opportunity to discuss with you between the Administration and the Congress various alternatives. I think that is very constructive, and it may put us, instead of on a confrontational course, or a cooperative course towards a solution.

But first let us lay out the problem, let us look at some solutions, and then start choosing between proposals, rather than just arguing about what the proposals might be. I would encourage you to move in that direction.

Mr. Chairman, I would ask unanimous consent that my opening statement be placed in the record at the appropriate part at the beginning of the hearing.

The Chairman. Without objection.

Senator Ford.

Senator Ford. Thank you, Mr. Chairman.

I do not know how much time is going to be alloted for each of the Senators. I have several questions in the uranium enrichment field.

The Chairman. We are operating under the rule of self-restraint, which sometimes works and sometimes does not. I know it will with you, so I am not worried.

Senator Ford. How disappointed you are going to be. [Laughter.]

Then I would like to follow up on the clean coal technology on the second time around, if we have an opportunity, if the Secretary can stay that long.

First, Mr. Secretary, let me say to you personally, and I would say it publicly, that you have been good to work with. You have been very forthcoming with me. When I have had questions, you have always been able to come back with answers and tried to work with me, and I want to thank you and compliment you publicly for that.

Secretary **Herrington**. Thank you.

Senator **Ford**. Having said that, let us go through several questions here that I would like to get into on the uranium enrichment. And Mr. Secretary, the biggest problem DOE faces, I think, in becoming competitive in the uranium enrichment field is the need to get its prices for enrichment services, SWU's, in line with competition.

What is your current price per SWU?

Secretary **Herrington**. $119 for the base 70 percent of reactor requirements and $90 for the top 30 percent.

Senator **Ford**. What is the price offered by your competition?

Secretary **Herrington**. I am going to say $98 right now, about $98, in that area.

Senator **Ford**. All right. Let us take $98 approximately. EURODIF is a French company. Is that theirs?

Secretary **Herrington**. Yes, $98.

Senator **Ford**. What about URENCO?

Secretary **Herrington**. One second. Let me try to get the accurate number if I could.

Senator Ford, we have the Assistant Secretary for Nuclear Energy here, Mr. Rossin, who might be able to answer these better than I. He has given me the information that they do not disclose the prices, but we are in the right range for EURODIF and URENCO.

If you care to have him step to the table, he would be happy to.

Senator **Ford**. I had indicated to the Department that this line of questioning was coming.

What is the price for the Soviet Union?

Mr. **Rossin**. They do not disclose their prices.

Senator **Ford**. Do we not know somebody who has been buying from them?

Mr. **Rossin**. And they do not disclose prices publicly, either.

Senator **Ford**. We have had a lot of interest in our operations here and I thought you would have intelligence that would get into that.

Mr. **Rossin**. They negotiate individually on each deal, and so they may quote one price to one customer and an entirely different price to another customer.

Senator **Ford**. That is typical. Then they lose money on every deal and depend on volume to get by. [Laughter.]

What is the price on the secondary market?

Mr. **Rossin**. This is like spot oil. It goes all over the place.

Senator **Ford**. Well, give me a variance then, top to bottom.

Mr. **Rossin**. I cannot. I do not have a figure.

Senator **Ford**. You cannot give me the price of the Soviet Union or the secondary market, and only approximate on the French and the English? Is that the best you can do?

Mr. Rossin. That is all I can do now. We will see what we can obtain and put the answer in for the record.

Senator Ford. I would appreciate it. That indicates to me that you ought to know what your competition is doing, and that bothers me just a little bit.

[The material referred to follows:]

PRICES OFFERED BY URANIUM ENRICHMENT COMPETITORS

Competitors in the uranium enrichment market do not publish their prices. Prices are negotiated with customers on an individual basis. The Department understands that Eurodif and URENCO are offering prices in the $90 to $100 per SWU range for new sales. The Soviet Union primarily sells enrichment services to help them acquire hard currency. For that reason, the Soviets price for enrichment services is the lowest available on the market and competes with short-term spot sales. Prices on the secondary market must compete with and be in the same range as prices offered by the major enrichment suppliers. However, NUEXCO, a uranium brokerage and consulting firm, currently publishes a price as low as $80 per SWU.

Senator Ford. Mr. Secretary, by law you set your SWU price to recover your costs. This year your revenues are projected at, I believe $1.3 billion. How much of that will you give back to the Treasury?

Secretary Herrington. $231 million.

Senator Ford. $231 million?

Secretary Herrington. Yes.

Senator Ford. $231 million. How much of that will you pay to TVA for electricity you are not going to use?

Secretary Herrington. $549 million I think is the figure now. That has been growing substantially.

Senator Ford. Roughly $550 million.

Secretary Herrington. Yes, sir.

Senator Ford. How much is interest on the so-called program debt?

Secretary Herrington. Well, the repayment issue is what you are addressing.

Senator Ford. Yes.

Secretary Herrington. It depends upon whom you talk to.

Senator Ford. That is kind of like the price of SWU's, is it not?

Secretary Herrington. This is one of the major problems in the program, on how much we owe to the Treasury and how much the interest is, with estimates all the way from $8 billion to $3 billion down to $300 million. This is where this program has gotten so badly off, one of the areas this program has gotten substantially off on.

There are substantial disagreements across the board between us and OMB and the Congress, the whole enterprise on repayment.

Senator Ford. Well, maybe we can get some answers in writing later on.

Secretary Herrington. I would appreciate the opportunity to lay out the various positions on repayment, sir.

Senator Ford. That would be fine. I would like to have those.

[The material referred to follows:]

UNRECOVERED GOVERNMENT INVESTMENT

Differences in the methods used to determine the unrecovered Government Investment in the uranium enrichment enterprise by the Edison Electric Institute (EEI), the Administration, and the General Accounting Office (GAO) are tabulated below.

	($ in Millions)		
	EEI*	Administration	GAO
1969 Beginning Balances	0	1500	1500
Net Cash Flow	1600	1600	1600
Adjustment for Unfunded Government Deliveries	(1470)	(1200)	(1200)
Imputed Interest	220	5600	5600
Subtotal	350	7500	7500
Adjustments	0	4100	0
TOTAL	350	3400	7500

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*Edison Electric Institute (EEI) represents the opinion of its member utility companies.

Notes:

1. This table was prepared by DOE to assist in understanding the conceptual differences between the EEI, Administration, and GAO estimates. Such categories of costs have been grouped to highlight differences while fully recognizing that these costs are categorized differently on the uranium enrichment financial statements.

2. The beginning balances represent costs which were incurred prior to 1969 that were allocated to be recovered from the sale of enrichment

services to commercial and Government users after 1969. The $1.5 billion consists of about $1.0 billion in undepreciated plant and about $0.5 billion in SWU inventory.

3. The net cash flow is the net of all enrichment outlays and collections of revenues. Included are Government revenues in years appropriations were provided (FY 1983 onwards).

4. The adjustment for Government deliveries is needed to account for the years where no revenues (or appropriations) were provided by the Government users but the cost of providing their enrichment services were included in the net cash flow calculation. The EEI number is larger as they made an estimate of past incremental higher costs of high assay enrichment. DOE did not make such an estimate because accurate data does not exist and the amount of the incremental cost is believed to be low as many of the existing security and health and safety requirements, which are largely responsible for the higher costs, have been made a requirement only in the last few years.

5. Imputed interest for EEI is on $130 million (1600-1470). The Administration and GAO imputed interest values were calculated on the initial $1500 million and the $400 million (1600-1200) amounts. The number becomes quite large because of the number of years involved (16) and no write downs are assumed.

6. The Administration makes a $4.1 billion adjustment to reflect the fact that 40 percent of the GDP capacity will not be used in the future and that none of the GCEP investment has an enrichment use. The adjustment also recognizes that these assets have no future earning power as the competitive marketplace will not permit recovery of these costs.

Senator FORD. How much is the actual factory cost of producing a SWU?

Secretary HERRINGTON. We have $46 per SWU for power and $22 for operation. Not included is $55 for overhead, and that is the demand charge for unused power.

Senator FORD. What does that make the factory price? Now, you have got $46?

Secretary HERRINGTON. Plus $55 plus $22.

Senator FORD. $46 is the actual heat and electricity or energy?

Secretary HERRINGTON. The actual cost of electricity purchased.

Senator FORD. $22 then is the——

Secretary HERRINGTON. Operation of the factory.

Senator FORD. And $55 is?

Secretary HERRINGTON. The TVA demand charge.

Senator FORD. That does not make the factory cost for me. I am trying to get down. I guess without the $55 would be the factory cost?

Secretary HERRINGTON. $68 would be the factory cost, roughly.

Senator FORD. The point I am trying to make here, Mr. Secretary, is the cost per SWU is the cost other than factory cost?

Secretary HERRINGTON. Yes, sir, that is correct.

Senator FORD. We could break down the SWU price you are charging in terms of these costs, and so we get down to the $46, $22, and $55. That gets down to factory cost, TVA cost, treasury repayment, the interest on the so-called debt.

Is there anything else?

Secretary HERRINGTON. I do not think so. I think that is it.

Senator FORD. It sets the problem, I think, then a little bit in focus.

What are you doing, if anything, or what is the Department doing, if anything, to reduce the factory cost?

Secretary HERRINGTON. Well, I think there are serious doubts in my mind of whether we are even going to be in this business unless we solve the miners suit, the TVA demand charge, and the repayment obligation to the U.S. Treasury. That is the reason that we have zero funds in the AVLIS program this year.

In my judgment, if we are not going to be in this business, we should not move forward on the AVLIS technology. We simply have to get together between Congress and the Executive Branch and solve this problem. It is something that has gone on too long. That is my outlook from a personal standpoint as Secretary.

Senator FORD. Is not the AVLIS program a big part of reducing the factory cost?

Secretary HERRINGTON. No, I think it is a separate issue.

Senator FORD. In the long term.

Secretary HERRINGTON. Yes, it would be.

That is provided we are able to develop the technology and then satisfy the debt repayment, the miners' suit, and then get on to the fact that we are going to be competitive.

Senator FORD. Has the Department instructed the utilities people to renew their contracts because ALVIS is going to make the price come down in the future?

Secretary HERRINGTON. I have had those discussions with a number of utilities. The counter from some utilities is that our price is uncertain, number one; number two, that they are going to have to go overseas for a certain percentage of their purchases now, because they do not have any confidence in our program, and with legitimate reason as far as I am concerned.

I am not encouraging them to, but if you are a business operator of a utility you have to really look carefully before you commit to a 100 percent purchase from the U.S. with the state this program is in.

Senator FORD. What are you doing about the TVA demand charges?

Secretary HERRINGTON. There was a meeting this morning. It is a series of meetings where we have raised the issue of reduction of the TVA demand charge. There is no resolution. I have worked on this problem for two years. The contract run until 1994.

The demand charges continue to go up. We continue to oppose them, the increases. It was $347 million when I came into this job. We are now at $550 million. We appeared at all the hearings and protested. We asked for a logical basis of why these demand charges were increasing. We thought they were arbitrary.

We have gotten nowhere with it so far.

Senator FORD. Well, and your letter, which I have a copy of, of February the 12th to Chairman Dean has not produced any kind of interest in cooperating with you?

[The letter follows:]

Department of Energy
Washington, DC 20585

February 12, 1987

Dear Mr. Dean:

I am writing to you about the inability of the Department of Energy (DOE) to come to a satisfactory agreement with the Tennessee Valley Authority (TVA) on the amount and composition of the demand charge payments being assessed under contracts entered into in the late 1960's and early 1970's. We believe TVA is billing DOE for charges which DOE is not obligated to pay under the contract. These demand charges are nearly one-half of costs of production of separative work in fiscal years 1987 and 1988.

The contract between DOE and TVA obligates the Department to pay demand charges associated with the costs TVA incurred to stand ready to deliver DOE's power requirements covered by the contract. However, TVA is billing the Department not only for these costs but also for costs TVA is incurring for cancelled nuclear plants which are not needed by the system and were not associated with the Department's power contracts. In addition, the Department is billed for the costs of deferred nuclear plants intended to meet future system requirements and, thus, are not the Department's responsibility.

As a first step towards resolution of this problem, I suggest that a meeting be arranged between you and Dr. A. David Rossin, Assistant Secretary for Nuclear Energy. I believe that prompt attention to this matter will foster a constructive discussion that will resolve this problem and avoid any further irreversible damage to the uranium enrichment enterprise. Dr. Rossin will call to arrange these discussions.

Yours truly,

Joseph F. Salgado
Under Secretary

Mr. Charles H. Dean, Jr.
Chairman, Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, Tennessee 37902

Secretary **Herrington**. We had a meeting this morning. There is certainly a lot of interest. Progress, I would say there is not much yet.

Senator **Ford**. Interest, but no progress?

Secretary **Herrington**. Yes.

Senator **Ford**. But in my opinion, your letter indicated the beginning of an attempt to renegotiate.

Secretary **Herrington**. I was attempting to renegotiate last year also, not necessarily in a letter, but I had those conversations last year and got nowhere. I think we need to continue to make those arguments, but this is a tremendous burden on the Government, to put $550 million into TVA from the Energy Department for electricity that we do not even use.

It is a standby charge basically.

Senator **Ford**. Well, at some point there was some interest in signing it and some reason for signing it, and it had to be substantiated to sign it, and times change. So that makes a difference in the contract.

Let me talk a little bit. What bothers me some is that this program has become a slush fund, the fiscal year 1987 continuing resolution, the part dealing with the energy supply research and development says that $684 million shall be derived from transfer from the uranium supply and enrichment activities provided in prior years and shall be available until expended.

And then it lists a whole bunch of projects. I think it is even furniture for Oak Ridge.

How did the uranium program that needs to cut its costs so desperately come to have $684 million in extra funds?

Secretary **Herrington**. Senator, I would like to give you a full answer for the record.

[The material referred to follows:]

TRANSFER OF EXCESS URANIUM ENRICHMENT FUNDS

"Excess funds" (i.e., unexpended funds appropriated in current or prior years to the Uranium Supply and Enrichment Activities account) accrue to the enterprise because DOE did not perform certain work during a fiscal year. The enrichment program accrued "excess funds" primarily by cancelling the Gas Centrifuge Enrichment Plant (GCEP) construction project, placing the Oak Ridge gaseous diffusion plant in standby, and reducing its power purchases.

DOE is required, under the Budget and Impoundment Control Act, to identify and decide whether to request the deferral, rescission, or reprogramming of funds appropriated for activities (such as those mentioned above) which have been cancelled or modified by the Department. In FY 1986, DOE requested that Congress defer $584,158,000 of such "excess funds." Only Congress and the President have the authority to decide the ultimate disposition of funds identified as "excess" to the enterprise.

Congress, through enactment of the FY 1987 Continuing Resolution, transferred $584,158,000 of "excess funds" plus an additional $100,000,000 (for a total of $684,158,000) from the Uranium Supply and Enrichment Activities account to offset FY 1987 appropriations for Energy Supply Research and Development activities. Accordingly, these funds are now excluded from the uranium enrichment account. "Excess funds" are not considered in annual financial statements for the enterprise or in determining the amount of the unrecovered Government investment in the enterprise that must be paid to the Treasury.

Secretary HERRINGTON. I think the short answer is we have cut our costs as our revenues fall off. I would like to provide a full answer for the record on that, on just how that figure is developed.

Senator FORD. $684 million just did not develop on top of the table. I would like to know where that came from.

Secretary HERRINGTON. Yes, sir.

Senator FORD. And is this not an example of the enrichment program being used as a bank to fund other unrelated programs?

Secretary HERRINGTON. I think that conclusion could be drawn on this.

Senator FORD. On February 4, 1987, the Energy Daily published an article on the use of the uranium enrichment account as a slush fund. Is it true that costs can be and are charged to the uranium enrichment account to support a variety of programs at DOE headquarters and at operation offices?

Secretary HERRINGTON. I do not think so, not to my knowledge.

Senator FORD. Would you check that and be sure and substantiate that I am wrong?

Secretary HERRINGTON. I certainly will.

[The material referred to follows:]

USE OF APPROPRIATED FUNDS

The uranium enrichment account is not being used as a "slush fund." The Department may not unilaterally charge non-enrichment related activities to the uranium enrichment budget account. The only uses of excess uranium enrichment budget authority to support other DOE programs are those which have received specific Congressional approval, either in Appropriation Acts or approved reprogramming actions. In those instances where Congress approves the transfer or reprogramming of appropriated funds, it is as if such funds were never earmarked for the enrichment program. They are not considered in annual financial statements for the enterprise or in determining the amount of the unrecovered Government investment in the enterprise that must be paid to the Treasury.

Senator **Ford**. Would you look at the article of February 4th and see how that squares with what your Department is doing?

Mr. Chairman, I have been eleven minutes and I will take about two more and I will be through.

Are over 500 DOE employees indirectly paid by enrichment customers through the enrichment account, when their actual jobs have nothing to do with the program as alleged in that article? That is another question I want answered.

How often has the Department proposed to reprogram enrichment accounts for other uses in the Department? And please provide us with a list of such reprogramming requests and the total amount proposed to be reprogrammed and actually reprogrammed in each of the last three fiscal years.

Secretary **Herrington**. I would be happy to submit an answer for the record.

[The article and material referred to follows:]

The Energy Daily

915 15th Street N.W.
Suite 400
Washington, D.C. 20005
202 638 4260

Wednesday, February 4, 1987

Volume 15, Number 21

Linden Slams The "Gap Theorists"

BY AVIVA FREUDMANN

The natural gas industry needs to "avoid being stampeded again by an energy crisis mentality," Henry Linden, past president and one of the founders of the Gas Research Institute, told a group of gas executives in Washington on Tuesday. Linden told the meeting that he has "negative words about revising the concept that there is a limitation on hydrocarbon resources, even in the lower 48 states."

"We have a whole new crop of resource pessimists that are coming up the line, especially in the Georgetown-Harvard corridor," Linden remarked. "These people are going to kill the gas business. We need to fight against gap theories."

Linden said that supply has been constrained by demand, and that the likelihood is that shrinking demand, not vanishing supplies, will be the problem. "Price elasticity is incredible," he said. "Resource pessimism has proven to be wrong, wrong, wrong everywhere in the world."

In Linden's view, federal tax policy should be the nation's "number one instrument" to help the oil and gas production business in its present difficulties. "Why do we treat the extraction industry as if it were part of OPEC or an economic enemy?" he asked.

Technology, including the development of resource recovery technologies, will be a source of future prosperity for the natural gas industry, Linden continued. "Advances in technology ought to be nurtured. Why is there only $14 million for the geo-sciences [in the DOE budget]? That's not a balanced portfolio."

Through secondary gas recovery, the industry can recover an additional 600 trillion cubic feet of natural gas by the end of the century, Linden predicted. "The potential for natural gas in the lower 48 is fantastic," he insisted.

Linden said that electric utilities should bet some of their resources on combined-cycle plants. "There is nothing between us and success except our pessimism and that of our customers, and we need to fight that," he told the meeting. "Let's convince our industrial friends and electric utility friends that their least cost method is to go with natural gas."

In-Fighting Rages At DOE Over Privatization Of Uranium Enrichment

BY RICHARD McCORMACK

Furious in-fighting is taking place among senior staff in the Department of Energy over the issue of whether or not to privatize the nation's uranium enrichment program.

In two weeks, DOE is expected to submit a report to Congress outlining its proposal. The report is written. But strong camps within the department and the administration are arguing against the proposal, which calls for the setting up of a government corporation, according to a number of Washington sources. No one involved with the row is willing to be named.

"It is almost certain that a recommendation to restructure the uranium enrichment business will not come from DOE because of widespread internal opposition," says an official. Even though some of the program's top managers strongly support privatization, the effort "seems certain to fail because of self-interest and bureaucratic inertia," he says.

Some at the energy department want the enrichment program to stay as it is currently structured because it helps fund millions of dollars worth of other activities, including portions of programs carried out by DOE's inspector general, its general counsel and its office of management and administration.

But according to sources, nowhere is bureaucratic self-interest more apparent than at DOE's Oak Ridge, Tennessee, operations office. While about 50 officials are paid by appropriations from the enriched uranium account, the sources say,

(Continued on next page)

Few Pleased By Hodel's Plan For California Offshore Leases

Environmentalists, members of the California congressional delegation and the oil industry have heaped criticism on an Interior Department draft proposal that would open up about 6.5 million acres offshore California to oil and gas leasing. Two California representatives quickly introduced legislation on Tuesday that would establish a 200-mile-wide offshore ocean sanctuary along the California coast where oil and gas development would be prohibited.

But California Governor George Deukmejian and an influential congressman on the important House Appropriations Committee are more supportive of the plan offered by Interior Secretary Donald Hodel. "When I used to practice law, we

(Continued on page 3)

In-Fighting Rages At DOE... *(Continued from page one)*

more than 500 other employees are indirectly paid by the enrichment account, which is described as a "slush fund" or a bank account from which they can draw at any given time to fund other programs.

One option for the administration as it struggles to resolve the row is a proposed 18- to 24-month study using hired consultants. This option is expected to be in the report submitted to Congress. "The secretary's office will probably decide to send up a fairly general report that will say we need to restructure the program, that we're not entirely sure how and that we're looking into it," said a Reagan official. "That's about all Congress will get this go around."

But if lawmakers decide that the proposed study is a subterfuge and a delaying tactic, "then it would probably come to the point of writing into law what their program would look like," said one well-placed congressional aide, who has been assured that DOE will meet the February 15 deadline. In the past, he added, Congress has avoided getting involved in the program "because it's just not a good way to manage it, from their standpoint or ours."

"If they want to stonewall, that's their choice. But we have a choice too," said the aide. "We could write a statutory limit in an appropriation on how much they can spend. We write that bill once a year. So every time they want to change their program, they would have to amend the law.... This is done all the time."

However, a detailed report that would effectively delay privatization might be just what is needed because there is a multitude of complex questions that has to be answered. For instance, DOE has not yet arrived at a price for the uranium enrichment enterprise. There is also an unrecovered debt that some estimate as high as $8 billion. If it is this much, "then it's probably a bankrupt business right now," said one congressional source.

A two-year report would also give the administration an opportunity to save face "and slink out of Washington" before any proposal is decided upon, said one observer of the nuclear fuel industry.

The administration "shot itself in the foot" by making repeatedly strong pronouncements favoring privatization and not following up on them, says one congressional assistant. The rhetoric has only caused confusion among DOE's enrichment customers. Duke Power Co. and Consolidated Edison Co. of New York are both expected not to sign new ten-year contracts until the dust settles.

For some in Congress, probably the best thing for DOE to do would be to do nothing. "And if they're not going to do that, then they ought to say up front that they're going to sell the business, come up with a legislative proposal and get all the uncertainties behind them," said the congressional aide.

Administrators of the enrichment program want to create a government corporation through the sale of stock. They don't look favorably upon selling assets outright to private companies. But top level Reagan Administration officials aren't enamored with this approach. "I don't think it's a good idea for DOE to address all the details of the financial aspects of it," said one member of the Reagan team.

Instead, DOE should get congressional approval to sell the remaining assets and retain an investment banking firm to put together an evaluation of the plants and to help figure out how to sell them off, he said. Doing nothing is not an option because competition in enrichment is getting fierce and with its present structure, DOE is having trouble competing.

It is believed that the pressure for change will come from efforts by private concerns to open new domestic production facilities. Washington-based AFC Inc. wants to purchase the unused Gas Centrifuge Enrichment Plant, which was cancelled by DOE when it decided that a new enrichment process (Atomic Vapor Laser Isotope Separation) was a better way to go.

But DOE is resisting selling off the GCEP assets, arguing in part that because it was uneconomic for DOE it will be uneconomic for anyone else.

"That's ridiculous because one of the potential partners, Boeing, claims that they can produce machines cheaper and they're willing to take an equity partnership," said one industry source. The Boeing proposal is being reviewed by DOE's top management.

Plan To Boost Tax Bite On Alaska Oil

Democrat Steve Cowper, Alaska's new governor, has proposed a five-year deferral of the economic limit factor in the state's oil severance tax, as a way to raise revenue and help the state during a sharp fiscal crunch. The economic limit factor is a tax incentive that greatly lowers the state's nominal 15 percent severance tax on marginal oilfields. Cowper's proposal would double the effective rate of tax in the Kuparuk and Lisburne fields on the North Slope and in Cook Inlet in southern Alaska. Alaska's revenues, 90 percent of which come from oil royalties or taxes, are estimated at $1.3 billion this year, about half of what they were in 1985. Cowper has proposed sharp budget cuts, the transfer of money from the earnings of the $8 billion Alaska Permanent Fund and several revenue measures, including the reinstatement of the personal income tax repealed in 1980.

Steam Generating Equipment Sales Boom?

Demand for steam-generating equipment will reach 3,850 megawatts in 1987, the American Boiler Manufacturers Association said at its midwinter meeting in Arlington, Virginia. The trade group explained its optimism (last year's orders were for only 1,839 MW) as being based on higher expected export sales. The cogeneration market has grown from 414 MW in 1984 to 1,067 MW last year, the group added. This year's orders are expected to be for 519 MW.

THE ENERGY DAILY IS A PUBLICATION OF KING PUBLISHING GROUP
Llewellyn King, Publisher, Grant Stockdale, Assistant Publisher
PUBLISHED MONDAY THROUGH FRIDAY. COPYRIGHT 1987 (ISSN 0364-5274)
SUBSCRIPTION PRICE: $995 PER YEAR
EDITORIAL STAFF
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PERSONNEL FUNDED BY THE ENRICHMENT PROGRAM

At the end of FY 1986, there were 65 Federal employees funded in the Uranium Supply and Enrichment Activities budget account--54 employees in DOE Headquarters and 11 at DOE's Oak Ridge Operations Office. An additional 214 Federal employees were funded through the Departmental Administration budget account--27 in DOE Headquarters; 181 at Oak Ridge; and 6 at DOE's San Francisco Operations Office.

The uranium enrichment enterprise must cover an appropriate portion of DOE indirect and overhead costs, just as other programs do. The uranium enrichment budget account does not include funds for the salaries of employees working on non-enrichment programs. DOE does not include any costs in the charge for enrichment service that are not related to the uranium enrichment program.

REPROGRAMMING AND TRANSFERS OF APPROPRIATED FUNDS

Reprogrammings and transfers of appropriated funds during fiscal years 1985 through 1987 from the Uranium Supply and Enrichment Activities account for other Departmental activities are tabulated below:

FY 1985	
Small Business Innovative Research.......	$ 1,408,000*
Geothermal Loan Program.................	25,000,000*
Energy Supply Research and Development...	60,000,000*
Subtotal FY 1985....................	86,408,000
FY 1986	
Small Business Innovative Research.......	1,370,750*
Energy Supply Research and Development...	200,331,022*
Environmental, Safety and Health.........	250,000**
Geothermal Loan Program.................	15,000,000*
Subtotal FY 1986....................	216,951,772
FY 1987	
Small Business Innovative Research.......	906,250*
Energy Supply Research and Development...	684,158,000*
Energy Supply Research and Development (Proposed)................	11,600,000***
Subtotal FY 1987....................	696,664,250
TOTAL..................................	$1,124,680,822

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*Transfer directed by Congress.

**Transfer requested by DOE and approved by Congress.

***At this date, $9,800,000 has been transferred.

Senator FORD. Now let me ask you a final question on this, and I know we get into arguments and differing opinions, and maybe not argumentative, but would it make sense, Mr. Secretary, to put uranium enrichment revenues in a revolving fund and specify their uses in law so that this program can be put on a sound financial footing?

Secretary HERRINGTON. I would fully support that. Even better, I think it should go into a separate corporation, Government-owned. I have thought that for a long time, that this would be a solution to the problem. I just do not know how to resolve the conflict on the repayment issue.

There are such allegations on how we got into that situation, I can see how it happened over the years. But we simply have to deal with it, and we would like to deal with it this year.

The Government should either be in this business or out of this business. The way we are doing business today is not a very good way.

Senator FORD. Mr. Chairman, I think if the Secretary would look at this operation very closely—and I do not see how the enrichment program can be a viable competitor when it is weighted down with so much apparent baggage that you really should not have to be paying for, and we keep—it seems like if you need a little something, it seems like you go there and pull the money out.

And that $600 some odd million that was used, set aside until it is used up, used up for what? You ought to look at the list, and that might be of interest for you to do that.

Mr. Chairman, I will wait for some more time.

The CHAIRMAN. Thank you, Senator Ford. You have touched on a very important area which I think we are going to have to legislate on this year. I know your Subcommittee has got a series of hearings to be held on that, and I hope we will report out legislation on that this year.

Secretary HERRINGTON. Mr. Chairman, I would like to come back and participate in that process. This is probably one of the highest priorities that we have in the Department today.

The CHAIRMAN. I am sure Senator Ford is going to ask for you.

Senator FORD. Mr. Chairman, that will be the second week in March, and any time between now and then you want to discuss it I am wide open. Just give me a shout and I will cancel the bureaucrats and lobbyists and take you on.

The CHAIRMAN. Senator Domenici.

Senator DOMENICI. Thank you, Mr. Chairman. I too have a number of areas, but I hope you will call my attention to when you think I have used enough time, Mr. Chairman.

Mr. Secretary, let me talk first about the Superconducting Super Collider. Our Chairman has alluded to it and, perhaps in jest, tied it to a nuclear waste disposal site. I know of no policy that does that at this point. Do you?

Secretary HERRINGTON. No, and I do not think it is a good idea.

The CHAIRMAN. That was in jest, unless somebody really wants the nuclear waste depository, in which event we will re-evaluate. [Laughter.]

Senator DOMENICI. Now, Mr. Secretary, last week you concluded a long series of consultations and ended up with the President saying we ought to build the Superconducting Super Collider. Then shortly thereafter, your Department indicated that guidelines were being prepared and set a series of target dates for site selection.

Now, Mr. Secretary, is there any current short list of where the Superconducting Super Collider might be located, or is it not the case that no site is preferred at this point and the process is just beginning as to which site might be the appropriate one?

Secretary HERRINGTON. I guarantee you, there is no preferred site or short list. This is a totally open process. To give you an indication, we hope to get proposals by August.

Most of the states and other parties that have an interest have followed it for three years. We put $20 million a year for three years into R&D for the SSC. So this is not a short fuse.

We then will take all the proposals that meet the qualification criteria and give them to the National Academy of Sciences and ask them to evaluate the sites under the criteria that have been given. The National Academy of Sciences will come back with an unranked list. We have specifically not asked them to have a minimum list or a maximum. We want them to come back with the real front runners that they recommend.

Senator DOMENICI. Now, Mr. Secretary, let me stop you for a moment and be very specific. And obviously any Senator can ask this same question if they like, but clearly my state is interested and you are aware that my state has a rather fantastic scientific facility, much of which are to the credit of the Department of Energy and its predecessor ERDA and its predecessor the Atomic Energy Commission.

But just to be very specific, if my state is interested and has been working on a site, then for this record is it fair to state that they are in the running, just as any other state, at this point in time?

Secretary HERRINGTON. Yes.

Senator DOMENICI. Now, when will this final decision be made?

Secretary HERRINGTON. We hope to have a preferred site in July 1988, and then enter into environmental impact statements, geologic characterization—into all of the nuts and bolts type activity.

Senator DOMENICI. Now, on the same subject, as we went through this over the years, including that moment when all the physicists of America finally said, in 1982 I think, let us quit fighting for our smaller projects, let us go with the Superconducting Super Collider, that event occurred.

We have been hearing that this should be international, that the free world should join us, that, being more specific, Japan probably should join us. And in Europe, Italy was on its own track, maybe still is. But as I remember, you indicated that even the European Community ought to be involved, both in paying for it and in its ultimate right to use the services that will be performed there.

Is that a true statement today?

Secretary HERRINGTON. Yes, I think it is. A project of this magnitude needs international financing, and we must come to that realization.

The detector at Fermi Lab today has Italian, French, and Japanese support. There is a lot of interest in a pure science type participation.

Senator DOMENICI. Now, Mr. Secretary, Superconducting Super Collider sounds kind of like it has to do with weapons. It is true, is it not, that this is not a weapons-oriented facility? It is a super-science facility for modern day physics as it pertains to sub-atomic particles and how matter is all constituted and what its properties are, is that a fair statement?

Secretary HERRINGTON. That is a very fair statement.

Senator DOMENICI. Now, one other area that I want to talk about and then I will save the others for the second round. The President's proposals with reference to science, with reference to keeping America on the cutting edge, deal mostly with the National Science Foundation initiatives wherein that budget is dramatically increased.

New centers of so-called science and tech excellence are to be established, between five and 15 is my recollection, built around the concept of the university systems and the private sector.

Mr. Secretary, whether the Department of Energy has fallen upon this or whether they truly enjoy the relationship, they are basically the proprietors and managers of probably the best scientific facilities for research in the world.

Now, as a general proposition, as the National Science Foundation under Dr. Block with the science advisers developed the new proposal, Mr. Secretary, were you involved in suggesting that the national labs might have a role? And if not, why not?

And if you were, what is their role in that plan that the President has?

Secretary HERRINGTON. I was not involved in suggesting the national laboratories have a role in that. I do not know why not. I have good relations with Eric Block.

We did coordinate insofar as we did not move forward on the Supercollider until such time as we were sure that the Administration would propose increasing the National Science Foundation budget, because we did not want the Collider to become the total recipient of scientific funds.

Science across the board, basic science, is important. And to put it all in one area would be a mistake. I think the national laboratories, I agree with you, are the best asset that we have today.

But I do not know how they fit into this program. They certainly need to be coordinated with technology transfer on some of this program.

Senator DOMENICI. Mr. Secretary, I am at eight minutes and I am just going to make a closing statement for you and save the enrichment and the lawsuit by the mining companies on uranium for my second round.

But let me suggest to you that I believe it is a shame that the President is proposing a major cutting edge science series of science centers and we have not involved the national laboratories. And I speak parochially, but if I was from Tennessee I would—if I did not have the labs I would be speaking for Oak Ridge, and if I did not have the labs I would be speaking for Lawrence Livermore.

I believe there is a natural marriage between the private sector university systems and these multi-disciplined labs, that has more of a potential for cutting edge science utilization and enhancing technology transfer than anything around.

And I hope as that moves through the Congress that you will not resist efforts to make a model out of that, to see what we can get for America's future, because I think it is waiting to be tapped and it will not tap in with the executive orders on transferring technology.

It is a tough, day to day science exchange involving people with goals and objectives, and we are loaded with the talent. We just are not marrying it up appropriately.

With that, I thank you very much for your cooperation in the past and for your answers.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Domenici.

I might mention that we will have at least one day of hearings on the Supercollider. Do we have a date set for that? We do not have a date set for it, but we will have a hearing, at least one on that discrete subject.

Senator Bingaman.

Senator BINGAMAN. Thank you, Mr. Chairman.

Mr. Secretary, let me return to a subject that was just mentioned, really, by some of the other Senators, and that of course is the problem of the oil imports and the growing dependence on oil imports.

Was it your statement in response to Senator McClure that you did not anticipate the Administration making recommendations for a resolution of this problem that Secretary Hodel talked about? You did not see that as being part of your job, or the Administration did not see it as part of its job?

Secretary HERRINGTON. No, I think that would be an improper characterization. I think we need to make recommendations. I do not think the report from the Department of Energy to the President is the proper forum for that. I think it needs to be made through the Domestic Policy Council at the White House level and made to Congress.

I think we are making a report to the President in the national security study on the different proposals and the pros and cons, but I do not expect in that document to say which are the winners and which are the losers.

Senator BINGAMAN. Are there any recommendations that are presently before the Congress from the Administration to deal with the growing dependence on foreign oil which you believe will correct the situation?

Secretary HERRINGTON. I think, Mr. Bingaman, there are a number of proposals that would help. Any one alone will not necessarily solve the problem. I could start down the list. I will do it very briefly.

Natural gas decontrol; repeal of the Fuel Use Act, incremental pricing, and the repeal of the windfall profit tax; opening Federal lands to exploration; the Outer Continental Shelf leasing program; the Oil and Gas Revitalization Act of 1986, and its provisions on production waste.

There are about 15 proposals. Not one of them by itself will make the difference but I think as a group they can do a lot to help and set the stage for the re-emergence of this industry.

Senator McCLURE. Would my colleague yield for just a moment?

Senator **BINGAMAN**. Yes.

Senator **McCLURE**. I apologize for interrupting, but I think we ought to note, since we have gotten further into it, and make the record rather clear that when we are talking about the recommendations, they are not from the Department of Energy; the existing statute requires the President to make his findings and recommendations within 45 days after the report is filed. That is the next section in the law after the one that requires the security findings to be filed with us.

And I assume the President will receive your recommendations as required by law and that he will come forward with his recommendations.

Secretary **HERRINGTON**. I'm not sure of that provision, which law you are referring to, Senator McClure.

Senator **McCLURE**. I will give you a copy of it. It is 3102, subsection (d), of the Omnibus Budget Reconciliation Act of last year.

[The material referred to follows:]

SEC. 3102. CRUDE OIL PRODUCTION AND REFINING CAPACITY IN THE UNITED STATES

(a) IN GENERAL.—(1) The Secretary of Energy, acting with the Energy Information Administration, shall conduct a study of domestic crude oil production and petroleum refining capacity and the effects of imports thereon in order to assist the Congress and the President in determining whether such production and capacity are adequate to protect the national security.

(2) The study provided for by this section shall be carried out within available appropriations.

(b) PUBLIC COMMENT.—The Secretary shall provide notice and reasonable opportunity for public comment with respect to conducting the study carried out under this section.

(c) REPORTING DATE.—The Secretary shall, within 120 days of the date of the enactment of this Act, transmit to the Congress and the President a copy of the findings and conclusions of the study carried out under this section. Such findings and conclusions shall be referred to the Committee on Energy and Natural Resources of the Senate and appropriate authorization committees of the House of Representatives.

(d) ACTION BY THE PRESIDENT.—The President shall, within 45 days after the date on which such report is transmitted to him, report his views concerning the levels at which imports of crude oil and refined petroleum products become a threat to the national security and advise the Congress concerning his views of the legislative or administrative action, or both, that will be required to prevent imports of crude oil and refined petroleum products from exceeding those import levels that threaten our national security.

Senator **DOMENICI**. That was Senator Nickles' amendment. Now we have got it all packaged up.

Senator **BINGAMAN**. Mr. Secretary, let me just follow it up. Is it your—the predictions that I am reading about in the newspaper, and maybe Secretary Hodel referred to them, are that we will import 50 percent of the oil we use by 1990.

Is it your view that that circumstance can be avoided if the Congress acts favorably upon the recommendations you just listed?

Secretary HERRINGTON. The highest import level we ever had was 47 percent, I think in 1977. I do not see it getting to 50. I am concerned where it is now. I do not want to see it get any higher.

I think some of these things that I have named can help. I do not know what to say beyond that particular point. It certainly—50 percent imports is not a tolerable situation.

Senator BINGAMAN. 50 percent is not tolerable?

Secretary HERRINGTON. Well, it is not good for us, there is no question about it.

Senator BINGAMAN. Would you expect that as a result of this report that you referred to there would be major additional recommendations coming to the Congress to head off this eventuality in the next several months?

Secretary HERRINGTON. I simply do not know, Senator Bingaman. You see, the way I look at the report—and I think the responsibility is to recommend energy policy from where I sit and explain what our report is based upon.

You have to weigh that against the budget policy and against tax policy. For instance, if we were to find several areas where we could really do a great deal in this industry by tax changes—we have just been through a tax bill, and I think the Administration as a whole needs to weigh the energy part of it against the other phases through the Domestic Policy Council. So, I simply cannot tell you today how we will react as an Administration on this.

Senator BINGAMAN. Let me ask. One of the things that you say in your testimony which I thought was good is that the key to maintaining the nation's competitive edge in an increasingly technological world includes expanded support for frontier research.

As I understand it, in several areas of your budget dealing with frontier research you are proposing cuts to us. Basic energy science is being one of those areas. It just seems to me that, if as a general matter we should improve our support or increase our support for basic research, that in an area like basic energy sciences the need would be even greater to renew our support for research.

How do you explain that proposed cut?

Secretary HERRINGTON. Well, it is a complex answer. I will try to keep it simple. There are a number of projects in the basic science budget that really are not basic science. I mean, what is the Department of Energy doing building buildings at certain universities in some areas?

If you take out those types of projects which are up for rescission—you may choose not to look at the rescission, and of course the law will put them through. We have proposed rescission of certain projects that are not basic research.

Take those out, then you will look at our budget on Basic Energy Sciences as plus nine percent. In the general science area, it is plus 13 percent. Bioloical and environmental R&D, it is plus 13 percent.

It is how you count and how you characterize these particular areas.

Senator BINGAMAN. Let me ask on a specific area then. As I understand it, in your fossil energy budget for petroleum and gas research and development, you also have a fairly significant cut. You are asking for $13.9 million, down from about $34 million in 1987.

It would seem to me if this is an area for doing research on enhanced recovery methods and such types of activities, it would be wise for us to increase our support for that while U.S. industry is having to cut back on its support. Am I wrong there?

Is there something missing in those figures?

Secretary HERRINGTON. I would think standing alone as an energy policy, you are absolutely correct. I think the cut in enhanced oil recovery is strictly budget-driven.

Senator BINGAMAN. I understand it is budget-driven. I guess I am just concerned about why funding enhanced energy recovery at this particular time is a lower priority in your budget than the other items that are proposed for increases.

Secretary HERRINGTON. Well, I think over several years, Senator Bingaman, that they even out. Some were cut some years differently than others. They appear to be lean programs, but I think they are adequate programs.

Senator BINGAMAN. Let me just ask one additional question on the oil business or industry, and I will then relinquish my turn.

But as you see it, if the price of oil were to stabilize at about $18 a barrel, do you think that would be a sufficient price to maintain a reasonable level of drilling activity and exploration and production in our country, or do you feel that that is an unacceptable circumstance for us?

Secretary HERRINGTON. I think it is entirely a function of who you talk to.

Senator BINGAMAN. I am obviously asking you, sir.

Secretary HERRINGTON. Well, when the oil last July was down to eight and nine dollars, we had a large contingent of stripper wellers, of which there are 450,000 in this country, say that the wells were viable at $15 and that if we could get the price to $15 they could produce.

And in the interim, we went to great lengths to try to keep from shutting in those, working on regulations so that they would not have to close.

Well, the price is over $15. I talked to some of those same people who now say $25 is the cut. I have talked to people who say if oil goes to $30 we might get more exploration. I have talked to people who say they are doing fine.

At this point, it just depends on who the producer is, where it is. You cannot make a general statement across the board that $18 a barrel solves our problem.

Senator BINGAMAN. But then, as I understand it, you cannot suggest to us a price of oil which you believe would be an appropriate price for us to maintain a viable domestic industry?

Secretary HERRINGTON. No, and I do not think it is the Federal Government's responsibility to work to set prices artificially in the market, at $18 or any other level. I think what we need to do as responsible stewards of energy policy is to make this industry viable by deregulating it, by taking away things like the windfall profit tax and restrictions to access to oil pipelines. Give them the incentives through the tax code or otherwise to do exploration and development. Take away things like the Economic Regulatory Administration that, to me, twelve years later has not been a successful program, and allow the industry them to breathe and operate.

At the same time, for the long term pursue energy options such as natural gas, which I think has been underrated in our energy mix. Work for coal, clean coal burning, which we are doing in a big way, and work for nuclear power to keep our options open.

It is the Federal government's role to look at long term projects. Quick fixes to the oil industry, such as import fees and the like, to me do not answer the problem. That is my personal view as Secretary of Energy.

Senator BINGAMAN. Thank you very much.

The CHAIRMAN. Senator Evans.

Senator EVANS. Thank you, Mr. Chairman.

I could not let the last comment pass without a comment on setting oil prices artificially. I think that would be marvelous to attain, but I think you would agree that oil prices on a worldwide basis are probably set with some forces not necessarily related to the marketplace today? Are they not?

Secretary HERRINGTON. I think they are more than a tad. I do not think anyone would argue that the oil market is a free market. But things like the petroleum reserve certainly help mitigate or cushion that type of thing.

Senator EVANS. You say in your statement that you will seek legislation authorizing a study of the feasibility of divestiture, this time just of the Southeastern Power Administration. In your view, if Congress takes no positive action on that request for authorization, where does that leave you in terms of proceeding with the study?

Secretary HERRINGTON. I do not think we can. I think we have to have approval.

Senator EVANS. Current law prohibits, in other words, any such study, so Congress does not to Act to continue that loan?

Secretary HERRINGTON. I would say that is correct.

Senator EVANS. I doubt that we will.

Secretary HERRINGTON. I think you should. [Laughter.]

Senator EVANS. I understand.

Turning to repayment reform on the power marketing administrations. You also say legislation will be proposed to ensure the repayment will proceed on a fixed amortization schedule as long as the PMA's remain under federal control.

Are they not on a fixed amortization schedule now?

Secretary HERRINGTON. I do not think they are. I think they have a varying schedule, the last time I looked.

Senator EVANS. Fixed does not necessarily connote uniform payments per year. It is fixed in terms of a final deadline for each project, when it has to be paid off, is that not correct?

Secretary HERRINGTON. I think that is correct.

Senator EVANS. So it really is a fixed amortization schedule. It differs in that it is not your brand of fire?

Secretary HERRINGTON. Yes.

Senator EVANS. Okay. And you say it will assure that repayment of the Federal investment will occur in a timely, stable, and predictable basis. Now and for the last several years, would you say that payments have been made on a timely, stable, and predictable basis?

Secretary HERRINGTON. That may be a poor choice of words. I realize those are calls to action. I probably could have chosen some better words on that.

Senator EVANS. But it is true, isn't it that those payments—and I plead not fully cognizant of all of the PMA's, but at least insofar as Bonneville is concerned—for some years now it was fully repaid the principal and on interest as they have come due?

Secretary HERRINGTON. Fixed, I would agree with on our discussion. Timely, I am not sure. There have been some problems on the timeliness.

Senator EVANS. I do not think in the last several years there have been.

Secretary HERRINGTON. There has been a lot of renegotiating going on.

Senator EVANS. When you say legislation will be proposed, if legislation is not forthcoming would there be any attempt by the Administration to your knowledge to implement any or a portion of those changes administratively?

Secretary HERRINGTON. I think I have a commitment to this Committee through my confirmation and otherwise not to do administratively what we cannot do legislatively.

Senator EVANS. I would say that there probably is some question in the law and regulations that you may well be able to do it administratively. The question is whether you would seek to do it administratively.

Secretary HERRINGTON. I personally did not seek to do it. I almost lost that argument this year, as you may know. It is still my position that we have a deal and that we will not move administratively. I intend to honor that so long as I am in this job.

Senator EVANS. I commend you, for your efforts. I know what a fight it was and that it was not easy persuading others in the internal discussions within the Administration. I think you did extraordinarily well in fulfilling that statement that you had made earlier.

Secretary HERRINGTON. I think it should be done legislatively. I mean, we have to do it right up on the table in front of everybody if we are going to do it and agree it is the right thing to do.

Senator EVANS. On magnetic fusion, you talked about a proposal, a budget proposal, for a device or for starting of construction of the compact ignition Tokamak at Princeton. What about alternatives? Are you continuing research and funding of alternative approaches to fusion?

Have we now focused on this one element as being our only approach, at least within the United States?

Secretary HERRINGTON. I think that is a fair assessment. We spent a lot of money on mirror confinement fusion out at Livermore, and we were forced last year to choose between the mirror confinement mirror and the Tokamak at Princeton. I think clearly Tokamak is the way to go. It has shown the most progress.

With unlimited funds, we might keep them both. But I think Tokamak is where we would like to put the money today, and I think we are looking for an ignition request in the amount of $300 million.

Senator EVANS. You mentioned a little earlier in response, I think to Senator Bingaman, that research and activities or at least the long term approaches to energy future lie within the province of your Department. I would agree with that.

You have a large R&D budget. I am concerned about a table which appears on our Committee staff report. This table shows the various energy R&D programs, both on the energy side and on the defense side, a subtotal, and then subtracted from that the use of prior year balances, so we could get a clearer picture of just how much new money was being requested.

It indicates a 21.5 percent increase in total money, but all on the defense side. The major share of that is at least, if you cluster them together—the defense side is up substantially.

The subtotal on the other side is down. It is up in clean coal technology, but that is more than accounted for by the reductions in other arenas.

Secretary HERRINGTON. Senator Evans, I have not seen the document you are referring to. I question the 21 percent figure. It may be in your document, but my understanding is that we were up about, in defense about 8 to 13 percent, 8 percent, and that included three percent real growth.

I just do not know what to comment on.

Senator EVANS. Well, perhaps this table approaches the figures from a Committee orientation. The large percentage comes from—if you subtotal the entire amount of money, at least as it looks on the budget picture, it is only 2.5 percent, 2.4 percent up from last year.

But in fiscal year 1987 you were depending on using prior year balances of almost a billion dollars. This year you are using only $165 million of prior year balances. So if you are talking about new money invested, that is where the 21 percent comes from.

Secretary HERRINGTON. Yes, I understand.

Senator EVANS. So it is a large amount of new money, almost all of it going into the defense side. And I am frankly concerned that we are cutting back dramatically on everything from conservation, electric energy systems and storage, solar and, other renewables, and even fossil energy. All of them are cut back seriously in this year's budget request.

Instead of expanding our research horizons and moving into a variety of areas, we seem to be contracting and have already chosen the winners. We are going to focus on nuclear, and a few other areas, and cut back dramatically on the rest.

Is that essentially the direction the Department is going to take?

Secretary HERRINGTON. Well, over 50 percent of our activities are defense-oriented.

Senator EVANS. I understand. Leaving the defense aside?

Secretary HERRINGTON. I think that is a legitimate role for the Department. I like the proposition that the labs and the national defense aspects of the nuclear activities are in the Department of Energy. The civilian leadership seems to make sense to me.

So we have chosen the winners in that area, obviously.

Senator EVANS. I would really in that respect just leave the defense aside from the civilian programs.

Secretary HERRINGTON. All right. The remainder, then, we are spending a huge amount in coal. I think it offers great return. We are down in enhanced oil recovery. We are down in some of the other areas.

I think we are substantially down in nuclear. I would disagree with the proposition that we are choosing nuclear over other technologies.

Senator EVANS. Our Committee table shows it is up slightly in nuclear.

Secretary HERRINGTON. We have several projects that have been cancelled or proposed for cancellation last year and this year. We have been forced to pick winners and losers in a number of these areas.

Senator EVANS. A year ago, you came before the Committee on the same budget hearing, as I remember, and asked that deferrals be made in many of the same programs you are now suggesting rescissions be made in fiscal year 1988.

What was the result of those deferral requests a year ago?

Secretary HERRINGTON. They were turned down.

Senator EVANS. Do you have any expectation that anything different will happen this year?

Secretary HERRINGTON. I am hoping, with the budgetary constraints and the fact that you are as interested as I am in meeting that $108 billion deficit target, that some of that stuff can go away.

Senator EVANS. What you are saying is going to be reduced is essentially the non-nuclear and to a certain degree coal. And coal, I think, quite clearly is in there because there are certain fairly significant members of the Congress who are quite interested in coal technology, and I think legitimately so.

That is up. Virtually everything else, if we are not abandoning, we are cutting to such a large degree that we cannot claim any real interest in moving ahead in those areas.

Secretary HERRINGTON. I think the point is well taken and, given other circumstances with more money, perhaps we should fund a few more of these. But things like MOD-5—I do not mean to single out things, but things like MHD, fuel cells, constructing buildings at some universities—I do not think these are our legitimate function if they cannot have a reasonable expectation of adding to the long term energy security from a Federal level.

Senator EVANS. I think I would agree with your comments on most of what you just listed. But they constitute small share of a much larger pie. I wonder if you have tried to devise or put together all of these elements in a coherent picture.

I suppose you do that in the budgetary process, but am I to read into the end result of this budget proposel means you feel that there are no great discoveries to be made, no advantages in continued research in the programs that you suggest be either subject to rescission or cut in terms of budget authority?

Secretary HERRINGTON. I think a logical conclusion from our budget, is that that is our best effort on the winners and losers. But I must tell you that these are a result of compromises within the executive branch with other budget priorities.

In many cases, we will ask for more money than we get out to submit to Congress. But then, as team players and as part of the executive branch, we will move forward on that budget.

If I had to make the budget myself, these are not all the things that we might like to do. But it is our best effort.

Senator EVANS. You just answered my last question, which was to say that this is not—this is not your precise set of priorities. These were also modified as you went through the OMB process?

Secretary HERRINGTON. That is a correct statement, but they become my priorities.

Senator EVANS. I understand that fully. I think you, perhaps of all the Secretaries that come before us, are more loyal in carrying those priorities forward than almost anyone I have seen, for which I commend you.

Secretary HERRINGTON. Thank you, Senator. Will you tell my boss? [Laughter.]

The CHAIRMAN. Senator Wirth.

Senator WIRTH. Thank you, Mr. Chairman. And Mr. Secretary, thank you for coming up and being as forthcoming as you always are.

And I do not envy you the job that you have and the juggling act you have to do down there and the responsibilities you face.

I am struck, Mr. Chairman, listening to the questions of the last hour, of a deja vu. I sort of get the same feeling that just about everybody on this panel was here right after the energy crisis of 1973-1974, when we had the first set of lines, and was here again after the bump-up in coming out of the meetings in Venezuela in the late 1970's when we had the next crisis in the country.

And you know, Mr. Secretary, you are talking to a lot of veterans of the energy wars here, who I do not think have any appetite for having the country have to repeat that again, not only as it makes all of our lives very, very difficult, but I think the damage that both of those occurrences in the 1970's caused to the country and caused to our economy is very, very severe.

And I would guess, to reflect or summarize a lot of the statements made here, the feeling is that were we as a country to make some relatively modest investments at this point, we could save ourselves from what appears to be a surety of very deep damage down the line as we become more and more dependent upon imported fuel.

I know that there is a dramatic disagreement between the philosophy of the Administration that would suggest that the government should not intervene in any way at all in that kind of investment, I gather, and most of the comments that have been made here, which suggest that, yes, we have an obligation to do that, that the so-called marketplace is a fiction when it comes to energy, when the price of oil is controlled as much as it is by a few individuals or countries in the Middle East.

I think there is a dramatic difference there. I am not sure that that can be reconciled by any further discussions of this issue.

Do you have any comment on that?

Secretary HERRINGTON. First of all, when I testified before this Committee on oil in front of the veterans, you all have been here for a long time on these issues and have a great depth of knowledge.

My own experience comes from sitting in gas lines in California, and I think that may not measure up to the experience you have. But it is no less a lesson to me, and I share your need not to get back in that position.

On how we avoid getting in that position, I think there is a difference maybe. I think we should have learned that the Synthetic Fuel Corporation program is not the way to go. I think we should have learned that the Economic Regulatory Administration is not the way to go, windfall profit tax is not the way to go, regulation of supply, prices, and allocation is not the way to go.

I think those are lessons that we have learned.

Senator WIRTH. Let me ask you, if I might, on the one hand you hear Senator Evans and others ask you about the various cuts in programs. Solar is down some 43 percent. As I reckon it, the electrical energy system is down 50 percent, conservation by more than $50 million; new technology for natural gas such as tight gas formations, particularly predominant in the West, an 80 percent cut; in oil shale research, down 90 percent.

A concern too many of us—not necessarily, because a lot of these projects tend to be western and there are a lot of western members of the Committee—but because it was the general assumption of this Congress and the country that we wanted to pursue a balanced energy program in which we were making investments now.

You respond and say that if we were to get rid of the fuel use tax and the windfall profit tax, that those are the steps we ought to be taking to provide this kind of a balance. Would it be possible for you to give us a measure of how productive those kinds of changes would be?

If we were to repeal the Fuel Use Act, how much natural gas would that free up and make available in the country? If we were to repeal the windfall profits tax, what would the impact of that be?

You made six or seven suggestions earlier, and perhaps for the record you could give us the specifics on that. We are getting down to the point of comparing apples and oranges. If you say we make certain repeals of certain acts and tax programs that will have X result, whereas many of us would suggest where we ought to be making investments, in tight gas and solar and so on, and that will have X results.

Could you give us an accounting of how those come out? Your people must have that, and you could do that for the record.

Secretary HERRINGTON. I would be happy to do it for the record.

[The material referred to follows:]

Insert For The Record

At the present time, the Department's Energy Security report contains the most current analyses of significant oil and gas energy policy actions and their costs and benefits. The following is a summary of findings for several of these options from the Energy Security report.

Option	Direct Tax Cost ($ Million)	Oil and Gas Production Gains (MBD equivalent)
27.5% Depletion, New Oil	460	370
Expensing of G&G Costs	260	200
Repeal of Transfer Rule	23	55
Comprehensive Natural Gas Decontrol Legislation	N/A	225

Secretary **Herrington**. The two you mentioned, you obviously went right to the flaws of my argument. The Fuel Use Act is symbolic only. It is illustrative of a mind set. It is where the Government dictates choices of energy sources. We have been routinely granting exemptions to it, and so it is not a significant change.

The windfall profit tax has not been collecting revenue, but we are getting back into the level where we are about to collect revenue from it.

Ask me about natural gas deregulation, which we discussed back and forth. 30 trillion cubic feet more of natural gas into the market from natural gas deregulation, between $16 and $24 billion in the economy.

There are some things that make a difference; they do not solve the problem.

Senator **Wirth**. I think we do have to try to get beyond ideology in these and get down to specifics, because this is going to be, again, enormously expensive to the country and to our economy, and probably to our alliances in Europe and the Far East, if we do have an enormous interdiction of oil, if there is some kind of dramatic change in the Middle East.

And we have to, it seems to me, have the best sense of what those costs might be and try to move aside ideological considerations. Some of us would like to see greater involvement and others would not, and I understand that. But we have got to get it down to as close a number as we can.

Let me turn to another issue and another hat that you might wear, and that relates to the whole weapons plan. I know that this Committee does not have jurisdiction over much of that, but in fact it spills over because you have a constrained budget and there are limitations.

And if you are spending money in one area, you are probably not—you know the nature of OMB and so on—going to be spending money in another.

It is my understanding that, looking down the line, we have some very, very severe expenditure problems coming up related to the whole rapidly aging nuclear weapons plan; that in Savannah River there are going to be significant investments that have to be made; that in Rocky Flats there are going to be significant investments that have to be made; the same in Pantex.

Coming along with that are some very real problems that are growing in terms of transportation safety and an increasing awareness of the public. If we are concerned, as we are, about what is going to happen in nuclear storage, how is the public going to be reacting increasingly as they come to understand the very real problems of the manufacture and transportation of the weapons themselves?

Can you give us a sense of where you are in terms of analysis of the cost to the taxpayer, to the government, of the nuclear weapons plan? When are you going to be coming forward to the Congress and telling us what the size and scope of this problem is?

And how long do we have to deal with it before it becomes of crisis proportion?

Secretary HERRINGTON. I think your comments are well taken. A year ago, we re-established the Assistant Secretary for Environment Safety and Health at the Department of Energy, and we ordered an immediate review of all facilities. The facilities are aging, there is no question about it. We could do more.

The problems you—not only the ones you mentioned, but also the N-reactor in Senator Evans' area, the way I view it is this we are moving on a priority basis to get these things fixed. We will need money.

I think it is my job to keep the options open for production if the Congress dictates that we keep producing in accordance with the strategic stockpile requirements that are put forth by the Defense Department. For that reason, we have a plan. We have a plan to run N-reactor and the Savannah reactors.

We are starting an EIS for construction of an SIS project, with Idaho disignated as the preferred site and I hope to have a proposal in the 1989 budget on a new production reactor. I think we cannot duck the issue any longer. We need to decide how we are going to address future capacity and if we are going to do it.

Senator WIRTH. I realize that you have a lot of options open to you. I just raise that question in part to alert us all to the fact that there are going to be some very, very significant expenditures out there and they are going to be coming sooner rather than later, I expect.

I know Admiral Foley, who is doing a very fine job for you, is on top of that in terms of putting that package together, and we have to be prepared for it.

Just as a final note, I just want to note that I suspect this may be the last time in which Dr. Trivelpiece will be up here with you before he takes on his new assignment with AAAS. And I just wanted to, once again for the record, thank him on behalf of all of us for such long and distinguished service at the Department of Energy.

I think you may be the longest tenured person there, in a Department where people come and go very quickly. He has my admiration for that tenure, as well as his professionalism as well.

Thank you very much, Mr. Secretary. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Nickles.

Senator NICKLES. Mr. Chairman, thank you very much.

Mr. Secretary, this is a second opportunity to see you today and it is a pleasure again to visit with you. I feel like one of your most important responsibilities as Secretary of Energy is to acquaint or at least let most of the American people know what kind of jeopardy or insecurity we are in, by lack of energy security.

Your study is coming out, I think you said earlier, what, next month?

Secretary HERRINGTON. I would estimate the middle of next month, the priority of the printer. I think just about the middle of the month.

Senator NICKLES. Mr. Secretary, just a couple of comments. I was not going to dwell on this. I have discussed energy security with you in the past, a year ago as a matter of fact.

I was concerned at that time that you were not aware of how bad things were domestically, and also how much that would increase our reliance on imported sources. I was not going to really dwell on that again today until I heard you say you did not see the United States imports going to 50 percent of our oil. Am I correct that you made that statement?

Secretary HERRINGTON. Well, I would like to correct that. I hope it does not go to 50 percent. The projections on the worst case scenario show 50 percent.

Senator NICKLES. Mr. Secretary, I will tell you right now, under almost any scenario you are looking at, the United States will be importing 50 percent or more in the next few years. And if your study does not show that, I think you are going to have to go back and get some better input.

I wish that was not the case, but the facts are that we had this same discussion last year and I asked you at that time if you thought it would get to 50 percent and you said, no, you did not think we would get there.

Do you know what percentage we are importing today?

Secretary HERRINGTON. About 38.

Senator NICKLES. That is correct.

Last year when you testified before the Committee, it was about 28.

Secretary HERRINGTON. A year ago November it was 27, so that would be about right.

Senator NICKLES. So we went from 27 or 28 percent in November to 38 percent today. That is an eleven percent increase in just a little bit over a year. Now, for you to say you do not think it is going to 50, I think you are missing the boat.

Are you aware of how much production has declined in the United States?

Secretary HERRINGTON. The figures I have seen, Senator Nickles, are divided in thirds: Our increased imports are due one-third to increased consumption, one-third to falling production, and one-third to stockpiling. I think those three can be pretty accurate and justified.

Senator NICKLES. Well, let us break that down. You have seen domestic production fall since you testified before this Committee last year. We were producing about nine million barrels per day, is that not correct, 8.9 to 9? And today we are producing about 8.3.

So you have seen about a nine percent reduction in production period right there. You have seen an increase in the imports of 25 percent from January to January, from this past January of 1986, from January of 1985. That is an increase of imports of 25 percent.

And I am just trying to tell you that that curve is coming up and you are going to go right through 50 percent. I just want you to be aware of that. You are the Secretary of Energy and people are looking to you, and one of the reasons why we have a Department of Energy is because we had the shortages in the past. People have told me we do not want to have those shortages again.

Part of your responsibility is to formulate policy to see that we do not have those types of occurrences happening again. And Mr. Secretary, the events are already set up to where our ever-increasing reliance on unreliable foreign sources has already begun.

When you testified a year ago, we had about 1200 rigs running. Today we have 802. That 802 is not finding nearly sufficient reserves or increased annual or daily production to equate with the new energy consumption. Yes, consumption has gone up somewhat.

I just want you to understand how serious it is. I will tell you, in my state we were producing 450,000 barrels a day one year ago. Today it is 350,000 barrels per day. That is a 22 or 23 percent reduction in one year.

And so when I hear you make some statement, such as "I do not think an import fee is very good" or something, I remaind you that this is in your shop, your watch. And I do not think all the problems can be solved necessarily in your shop.

I would agree with most all of the recommendations that you mentioned: Fuel Use Act, or natural gas decontrol, and repeal windfall profit tax. I agree with every one of those, and all of them will help in some amount, although it could be debated to what extent.

But I would hope that you would be aware and I would hope that you would communicate it to the President that our reliance on unreliable sources—and I am talking about sources in the Middle East—is increasing at a dramatic, draconian rate.

We had hearings that Senator Boren held in the Finance Committee with a lot of experts, and the question was just when we are going through the 50 percent range. Most of them were thinking it would be in 1989 or 1990. And then the next question was when would we go through the 60 percent range, and most of them were picking in the mid-nineties for that.

If we are importing 50 or 60 percent, I think that you would agree—or would you agree—that that poses or that imposes a serious security risk for this country?

Secretary HERRINGTON. It is certainly not a good situation.

Senator NICKLES. Would it help refresh your memory, when we were importing 34 percent in 1973 we had some real gas lines?

When we were importing 44 percent in 1979, we had some real gas lines. And we are looking ahead to gas lines again.

With respect to the Middle East situation, I cannot help but think that somebody is going to get mad at us some time and shut the valve and SPRO, et cetera, is not going to be able to solve that problem.

Let me ask you one question. In your study you examine an import fee. Did you examine an import fee proposal that basically would set a floor of say $18. Senator Boren has introduced one at $18, I have introduced one at $20, Senator Domenici has introduced a fee capped at $22.

The floor price bills say we will tax the difference between world market price and the floor. In other words, we will set a floor so we will lend some stability to the domestic markets. Did you study that type of a proposal?

Secretary HERRINGTON. Yes, we have.

Senator NICKLES. And so you will have the plusses and minusses in that?

Secretary HERRINGTON. Yes. We discussed that this morning, but I understand exactly what you are referring to, and we have looked at that.

Senator NICKLES. Well, I think a lot of people who have given this issue some examination have leaned towards that type of a proposal as making more sense than the five dollars or the ten dollar add-ons. They now that that would make us non-competitive and know that that could cause a lot of problems for particular areas of the country. But they think that a floor level would lend some stability and more probably than not would give some incentive to some of the few people who do set oil prices to be a little more stable.

On that same thought, I heard, as a response to one of the questions, that the government wants to stay out of it and allow the marketplace to work. But later you admitted that OPEC was controlling the market.

If, in the event that the tentative agreements that OPEC has, disintegrate and you see oil prices plummet and plummet substantially back into the single digit figures, would you be more receptive to saying, "Well, wait a minute, we are going to try," Since OPEC members are the governments that are manipulating the market and driving it down, would DOE be more receptive to the idea of a floor price in some range so we would not just see the price, as it did last year, go from $28 to $9 and back up to the $18 range, basically wreaking havoc on the domestic industry?

Secretary HERRINGTON. I think we would have to look at it, and we also would have to evaluate it on what the cost to the overall economy is, too, in addition to what is happening to the industry.

Senator NICKLES. When you are plugging in your figures for the costs to the overall economy, I hope that you will look at the cost of the overall economy for the devastation in this industry as well, as bank failures, and costs to the FDIC, because we have had a lot of that.

Again, a lot of the economic devastation was caused by this wild fluctuation in prices that was orchestrated out of OPEC. So that is a cost on the economy as well, would you not agree?

Secretary HERRINGTON. Yes, I would.

Senator NICKLES. I appreciate that.

One final comment. I mentioned to you earlier—and I would like for the Chairman to chime in on this, because I know that there is a lot of interest on the Committee for filling SPRO. You mentioned to me earlier today that we could fill SPRO, or the maximum fill rate would be 100,000 barrels per day; is that correct?

Secretary HERRINGTON. Yes.

Senator NICKLES. In calculating what would happen if we had a fee on imported oils, or a user tax is what I would call it, of 30 cents per barrel, you could pay for filling SPRO and would fill SPRO over a six or a seven year period of time. Instead, if we went by your proposal of filling it, which would fill it at 35,000 barrels per day, you are looking at 18 years just to get up to 750 million barrels. In other words, you are just never going to get there. And again, I think it just makes good sense, with the oil prices as low as they are, we ought to be maximizing the fill rates during this type of a cycle.

And I agree, we should pay for it as we do it and not do it with borrowed dollars. And I think it is logical to have a users fee. The reason why we are filling SPRO is to give us some security in case those unreliable foreign sources are shut off, as they have been two times during the seventies. Let us have a small tax to pay for it which I think only makes sense.

I do not see that as being inconsistent with the Administration position in any way, shape, or form, and I hope that you will give it serious consideration.

Secretary HERRINGTON. Thank you.

The CHAIRMAN. Let me say that I certainly agree with you, I think we need to go up to at least 100,000 barrels a day. I guess that is probably the maximum.

Secretary HERRINGTON. That is all that we could take. We are physically constrained with the available capacity at the sites. Big Hill would increase that, but only after 1990.

The CHAIRMAN. If we cannot put the tax on, we ought to go back to our old law which I think is still on the books, which says that it is just off budget, because you are not spending that money, you are just putting it in SPRO. And we have gone through this problem with every Administration, and we try to put oil in SPRO and they think, well, you know, it is taking out of my budget and helping some future President.

President Carter was the same way. Every President is like that. But I think it is incumbent on us to put the money in for SPRO because it is going to be of vital strategic importance, economic importance to this country, at some point in the future.

The CHAIRMAN. Now, Senator Ford, can you preside through your questions, and if you can wait after that to preside, fine. Otherwise, if I may ask Senator Evans to preside. I have got the Denmark Energy Minister coming to my office and we have to talk about SPRO with him.

Secretary HERRINGTON. Mr. Chairman, he is interested in import fees, too. I met him yesterday.

The CHAIRMAN. He agrees with us, I am sure. [Laughter.]

Senator FORD [presiding]. Mr. Chairman, I thank you for the honor and the privilege to chair this distinguished Committee.

Senator MURKOWSKI. I wonder if my colleague would excuse me.

Senator FORD. You do not have to worry about it. You just got reelected. You can wait until your turn.

Senator MURKOWSKI. I know, but I have to leave because we are trying to open up ANWR.

Senator FORD. ANWR what?

Senator MURKOWSKI. ANWR later. So if you will excuse me, they just came in and this looks like our last big chance, Mr. Secretary. I know you would approve of that.

Senator FORD. Let me follow up on Senator Nickles' question about your study and what you have, and that is I understand it is an energy security study?

Secretary HERRINGTON. Yes.

Senator FORD. Under the law, if we do have a shortage the curtailment of natural gas is in the law and that is for use of various and sundry necessities. And are you in this study looking at the curtailment of natural gas in terms of increasingly less gas to curtail?

Because under the law, the only gas, natural gas you could curtail, would be that which is pipeline gas, and today I would venture to say that not more than 45 percent of the natural gas going through the pipelines belongs to the pipeline itself. We are into the carriage, where you buy it and I charge you so much to transport it.

So it is getting to a point where it is going to be very little natural gas to curtail. Will that be a part of your study?

Secretary HERRINGTON. Yes, sir.

Senator FORD. That will be a part of your study?

Secretary HERRINGTON. Yes, sir.

Senator FORD. All of us, I think, Mr. Secretary, are beginning to look at the down side here as it relates to another energy shortage. I think we have an additional factor here based upon what Canada might do. Not only do we have OPEC, but we have Canada that is furnishing oil and natural gas, and they are generating electricity and having long term contracts in this country.

And now I think they have the go-ahead on another huge generating facility in order to transport that energy across the line. And I am beginning to believe there is more lobbying in Washington by Canadians for acid rain than there are Americans lobbying for acid rain controls.

And so I think there is a different—but we have a new player on the field. And so with that, let me get to a few questions about clean coal technology, and I will try not to keep you too long.

Mr. Secretary, what is your view of the relationship between the clean coal technology program and the demands for action to reduce acid rain in the Northeast and in Canada?

Secretary HERRINGTON. I think there is a relation, but I think it is a mistake to tie them together, that we are doing clean coal to solve acid rain. I am still not convinced that coal is the sole culprit in acid rain, and I think it is very clear that we do not know what the effects of acid rain are.

The clean coal program is good for this country because it teaches us how to burn coal better. It is one of the best programs we have in the Department. To tie it to acid rain or to say we are doing clean coal because of acid rain to me is not a perfect nexus between the two.

Senator FORD. Well, what is the status of negotiation in your first solicitations, and when do you expect to have all nine completed?

Secretary HERRINGTON. We have nine projects selected. Two are negotiated.

Senator FORD. Two are already negotiated, so you have seven left?

Secretary HERRINGTON. Seven left in various stages. But I expect them to be totally wrapped up by June 1st. That is our target and I think we can make that.

On part two, we have 139 responses that came out in part two on the request for a statement of interest, and they totaled about $5.16 billion. And that purpose, of course, is a little different. It is a retrofit-repowering issue, and I think we are moving forward on that particular area.

And then there is, of course, Clean Coal 3, where we are looking at out-year funding, $50 million in fiscal year 1988—I am sorry, $50 million in fiscal year 1990, $100 million in 1991, $50 million in 1992. That is the current plan, but that is not finalized.

Senator FORD. Well, Mr. Secretary, what will be your phase three? Will that be basically a continuation of phase two?

Secretary HERRINGTON. I would say it is designed for technologies that were not proven out in phase two, that are not quite mature enough, or that we overlooked in phase two.

Senator FORD. Would there be any reason not to combine the second and third solicitation into one program, rather than having an additional solicitation?

Secretary HERRINGTON. I do not have the authority to do that, and I know that has been suggested. It makes some sense. I certainly would not advocate it yet, until we get a chance to look at what we have in phase two to see just what the scope of the problem is.

It is a real possibility.

Senator FORD. What is the policy in the solicitations on recoupment or repayment?

Secretary HERRINGTON. Well, there was originally a misunderstanding on it and I think it has been cleared up. My feeling is that most of the people that submitted proposals now understand that policy. It should not jeopardize the program.

Senator FORD. What is it, then? What is the policy?

Secretary HERRINGTON. Recoupment is desirable, if it is possible. If it is not, for example, profits are not realized, it is not required.

Senator FORD. Are you convinced, then, that this policy gives the maximum incentive for participation in these projects?

Secretary HERRINGTON. I think it does. It is a good program. There has been a good response. We are pleased with the program and we think we are getting some benefit out of it.

Senator FORD. I agree with you that we do not want to get to say that acid rain is pushing clean coal technologies. But do these technologies compare to the technological solutions of the acid rain problems that are available today? How do they compare?

Secretary HERRINGTON. This is another answer that depends on who you talk to. If you talk to the Canadians, some do and some do not.

Senator FORD. I am talking to you on how we feel. I am not worried so much about them. We will figure out—well, we will see how well the President capitulates when he meets in Canada in a little while.

Secretary HERRINGTON. I think these are pretty good programs as far as acid rain is concerned. I might add, and this is a fact that is not understood, but that needs to be understood—the U.S. coal-burning utilities have committed more than $60 billion during the last ten years to sulphur dioxide reduction standards that I think are the toughest standards in the world today.

And since the Clean Air Act of 1970 was enacted, the U.S. industry has spent what EPA estimates to be $225 billion on air pollution controls. I mean, that is a real commitment, and it is tough for me to hear people say that we are not committed to this program.

Senator FORD. Mr. Secretary, how does the program mesh with the recommendations of the joint envoys in their special report?

Secretary HERRINGTON. From our standpoint, the program meshes very well.

Senator FORD. On fossil research and development, your proposal for fossil R&D is a cut of $132 million, roughly 44, 45 percent. Should it not be obvious to you that this proposal as it relates to Congress is off the mark and probably will be unacceptable?

Secretary HERRINGTON. I have to leave that up to Congress. This is my best estimate of what I think is necessary for a viable program. Again, I would state there are certain things in this program from last year that I think we ought to terminate funding for.

One would be the MHD, obviously, and the phosphoric fuel cell research, and a few others. I think some of these things we can walk away from. If you ask the experts, MHD on a scale of one to ten is probably at the bottom of the list. Yet we are still funding it.

Senator FORD. Mr. Secretary, you have been very patient and I will not continue with my questions. I will submit some of them to you for answers to the Committee in writing.

I would appreciate you getting those back to us as soon as possible, in addition to one or two others that we alluded to in our earlier question and answer period.

And so I have no further questions. Senator Evans.

Senator EVANS. Thank you, Mr. Chairman.

I have just got two or three questions and probably will have some others for written submission.

Let me turn to the defense waste processing which is now going on and being funded both at Savannah River and at the waste isolation pilot plant in New Mexico. I am distressed by the slowness with which we are moving on the waste vitrification facility at the Hanford site.

That is a longstanding difficult problem. I think that we all agree that we have had severe and continuing problems there for many, many years. And it is my understanding that the request and the needs as expressed from Hanford if you carry on in a responsible fashion, are substantially higher than the budget requests that are now being made.

This budget requests modest increases, but they are far short of requests especially in the areas of disposal activities in moving ahead as rapidly as possible on the vitrification process. In other words, we should do a better job rather than spending all of our time of patching and cleaning up the current situation without an overall plan.

Why are we so slow?

Secretary HERRINGTON. I am not willing to accept yet that we are slow on it. I think the $14 million we have in there is adequate for the program. I would like to look at it again before I give you that answer and supplement it for the record.

Senator EVANS. It is my understanding the $14 million in there for the operating and capital of the HWVP is about half the request which was made, if I am not mistaken.

Secretary HERRINGTON. I am not aware of that, and I would like a chance to review that particular issue.

Senator EVANS. It may be a request out there from the operators to the agency.

Secretary HERRINGTON. I am not contradicting you. I am not saying you are wrong. It could very well be it, but I would like to look at it again.

Senator EVANS. Well, it just seems to me that after the length of time it has taken to get started on some of the defense waste cleanups, not only here but at Savannah River and New Mexico as well, that the rate of cleanup has proceeded much more rapidly elsewhere than it has at Hanford. There are some serious continuing problems there.

I think they ought to be cleaned up as rapidly as possible. I think it is having a very substantial adverse impact on people of that area looking at other facilities that are nuclear-oriented coming to Hanford.

It is my understanding that, in fact, the budget request for fiscal 1988 will just slide the vitrification plant's expected operation date by two years.

Secretary HERRINGTON. I am just not prepared to answer that today. It is hard to tell from our budget figures that we have here.

Senator EVANS. All right. We will submit some more on that.

You would be disappointed if I did not get to the high level nuclear waste program on the civilian side. I have kept away from it so far. I do know that in your mission plan you are suggesting that, following review by Congress, a budget amendment will be submitted for the $725 million program, rather than the level of $500 million.

That presumes that we approve a mission plan amendment, at least that's my understanding. And yet, a mission plan amendment would clearly be the trigger for delaying rather than proceeding with site characterization for a second repository.

And it appears contrary, that if you are going to delay that through a mission plan amendment, you still want $225 million more than if you did not delay that. How do those get hooked together? Why $225 million more if we delay the second site?

Secretary **Herrington**. I think that I cannot be specific on where the $225 million goes. I have talked to Director Rusche about it. I would like to again submit that for the record. He is not with me today up here.

[The material referred to follows:]

The FY 1988 activities described in the FY 1989 budget request support the program described in the draft Mission Plan Amendment. The budget states that the appropriate FY 1988 funding level to carry out those activities is $725 million but that $500 million was being requested at that time pending resolution of external issues. A $500 million funding level in FY 1988 would not provide the resources necessary to carry out the program as described in the June 1985 Mission Plan. The draft Mission Plan Amendment articulates the issues referred to in the budget request, and we are seeking Congressional direction in their regard. If we were to endeavor to carry out the program as described in the June 1985 Mission Plan, additional, potentially substantial, resources beyond $725 million would be required in FY 1988.

Senator **Evans**. All right. That would be helpful.

The last question really relates to the progress on the required, you say in your testimony, the operating costs of the various material production facilities depends on full year of operation, normal operation of the N-reactor at Hanford, Washington, which is currently on a standdown status for safety improvements.

We have had now, at the instigation of the Department, a distinguished panel of six experts who collectively have recommended a long series of safety improvements, the so-called Roddis Panel. I understand, if I remember correctly, the chairman saying he thought the plant ought to be closed down permanently unless there was an overriding need for continued production of military weapons material.

I presume that the assumption has already been made, there is a continuing need for such materials. But he said, if you do that, here are the minimum safety upgrades which are necessary for continued operation.

I have not had an opportunity to talk directly with Mary Walker, head of the environmental health and safety division. But, in reading a newspaper report, it sounded to me very much like there would be selective changes, but not all of the Roddis Panel's recommendations. She said something like we do not feel that it is dangerous to run it even if we did not make any of those changes.

What is the policy of the Department?

Secretary **Herrington**. Well, I think that is a little bit skewed. I think the statement she made is true, we have made the determination. We think that the plant was operating safely before, but the changes have been recommended.

I think the difference of opinion has come over the inerting process inside. But I brought with me today Mr. Bunch, who I would like to step up to the table, and who has been our lead person on the N-reactor, to address that specific question for you, Senator.

Senator EVANS. That would be very helpful.

Mr. BUNCH. Senator Evans——

Senator EVANS. I think, Mr. Chairman, you probably should identify yourself for the record.

Mr. BUNCH. Yes. I am Del Bunch. I am with the Environment, Safety and Health organization just spoken of. We did in fact get a response from Mr. Roddis and others, recommendations for improvement to the N-reactor. Our own independent reviews that were done since Chernobyl identify a host of changes and opportunities for improvement to the plant.

What we have done is not, I believe, in disagreement with Mr. Roddis' recommendations. We have set out to recommend and implement a series of improvements to that plant which will, in my mind, eliminate a lot of the concerns that were identified in the course of our reviews.

Some of them will not be done immediately. It simply takes a while to procure equipment and get it installed. It is not that we are not going to do those kind of changes. It is just going to take a little time.

Senator EVANS. Do you have confidence in the technical expertise of the panel that you appointed to carry out this recommendation or this series of recommendations?

Mr. BUNCH. I think any time you assemble groups of experts independent of an organization and ask them to take a good hard look at your operation and they come back with sets of views which say two or three things—one, that recognizes the improvement that has been made in the past in the operation; two, that recognize the depth and the quality of our attempts to try to make things better for the operation out there; and three, point out things that we might not have thought of or things that in their minds deserve increased priority—you get the sense that they have done a very thoughtful job.

I think that is what we received, and I am confident that they put their best foot forward and their best effort to try to give us a reasoned, thoughtful analysis of where we might make further improvements to that plant.

Senator EVANS. You know, this line of questioning in no way indicates any—we may have all had concerns about what we did or did not do in the past. I think all of our interest was jogged by what happened at Chernobyl. We need to figure out both what is necessary in order to ensure the actual safety of the plant, as well as meeting the public's perception of safety.

Do you believe that at this point Mr. Roddis or his panel would say that the plant ought to be reconvened, given the improvements which have been made and the future program of improvements that you intend to make, presumably some of them after the plant is restarted in July?

Mr. BUNCH. Well, I would not want to presume that I am going to faithfully reproduce their views, but I have talked with them and all of them have supported the kind of specific action for improvement that we have identified. Whether or not they would do them precisely in the same fashion we have, I am not sure.

I think that they would support the kind of program we have undertaken.

Senator EVANS. Do you intend to ask them to consider the safety improvements. It seems to me that the logical series of steps would be the following: having asked somebody to conduct a review, giving you a whole range of recommendations, you in turn take up the recommendations and respond to each one as to action, no action, alternative taken, and the timetable.

Does it not make sense to then represent your plan to the same body you originally asked and say: what is your current recommendation, given this response which we intend to make, do you think that—or would you recommend that we restart the reactor and run it as we finish the rest of these safety improvements?

Do you intend to ask the panel for specific responses?

Secretary HERRINGTON. Well, first of all, we are having several groups look at this, obviously. There was a group in the Department of Energy, and then of course we have the National Academy of Sciences and the National Academy of Engineering that are also going to look at this and every other facility we have to give us an opinion on it.

I think there are enough independent experts looking at it and monitoring the process. I had not thought of taking this plan back to Roddis and say, what is your opinion of this.

I would like Del to comment on that.

Senator EVANS. May I just ask, do I understand correctly that—the Roddis panel not only made some recommendations of their own, but adopted by reference other recommendations? I don't know whether those are National Academy of Science recommendations or your internal recommendations. Could you tell me?

Mr. BUNCH. Yes, sir. What they adopted were basically the recommendations developed by our own independent ES&H reviews which we convened.

Senator EVANS. And so they encompassed your internal recommendations in their final report?

Mr. BUNCH. That is what I was trying to convey. At least in my mind, they supported the kind of improvements and the opportunities for improvement that we have identified since the reviews commenced.

In terms of the specific question you raised, if I may speak to a specific concrete example, Mr. Roddis recommended, among other things, as Secretary Herrington pointed out, that the confinement system for the N-reactor be inerted as a precautionary measure.

We are going to make provisions to make that change. In my conversations with Mr. Roddis, he would be prepared to look to the recommendations for actions that are on the table and the kind of program we have, but he was frankly looking for specific details of implementation, some of which still await our reviews of which way is the best strategy to get this done.

It may well be another month before we would be prepared to come back to those gentlemen to see if they would have some useful comments to us. As Mr. Herrington pointed out, we still have not heard from the National Academy of Sciences yet.

We still have some ongoing reviews that may yet shape the form of some of the specific recommendations and actions we have under way. So I think it is a little premature yet.

Senator EVANS. What is your current timetable for restarting the reactor?

Mr. BUNCH. At this point in time, we have identified about 100 actions that we would like to see done before the plant starts back up. I am told—and we only had a meeting today on this to look at the present schedule—that we should be able to make early July.

There may be some difficulties in meeting that date, but that is our present best estimate.

Senator EVANS. Do you think it would be a useful thing to reconvene the Roddis panel—and perhaps this is really a policy question the Secretary might want to respond to. Presumably you do not really know, if you say you have not received yet from the National Academy of Sciences their recommendations, all specific recommendations yet.

Secretary HERRINGTON. No, but I think we have to plan the best we can with what we have.

Senator EVANS. I understand that. And how soon do they intend to have the NAS recommendations in to you?

Secretary HERRINGTON. I think that is due any time.

Mr. BUNCH. My understanding is we will get a formal report from them around the 1st of May. We may be able to get a preliminary reading from them sooner.

Senator EVANS. What would be your response if they had as a key element of their recommendations and necessary to implement in order for a safe restart of the reactor a proposal that might take six additional months to carry out?

Secretary HERRINGTON. I think if it is substantial and it is obviously a serious problem, then we would slide the starting six months. The intention here is to run a viable program and not to get it started at all costs.

Senator EVANS. Then back to the policy question. Do you think it would be a useful thing both for their ratification of what they had recommended, but perhaps as much for outside perception, to go back to the Roddis panel and lay out the Department's response and your views as to the safety of restarting the reactor, in order to reach some consensus on these improvements.

The Roddis panel members are not the managers of the reactor. But it certainly would be helpful, at least as I can tell, to have them say: yes, we think you have responded well and it is safe to restart the reactor.

If they are not asked and they come in independently and say: look, the Department has not done everything that we think they should have done, we don't think it is appropriate to restart the reactor. If that happens, we are in all sorts of trouble.

Secretary HERRINGTON. I think your point is well taken. But the ultimate operational decision has got to be in the Department of Energy. That is what we are getting paid for.

Senator EVANS. It should be.

Secretary HERRINGTON. I think there is an issue of the national need for defense material that we have to balance on all of these particular suggestions. I just have to look at the way it comes out with the National Academy first.

Senator **Evans**. Could you submit for the record the work schedule in response to these various safety requirements to be accomplished, say over the next six months and over the next twelve months?

Mr. **Bunch**. Yes, we can.

[The material referred to follows:]

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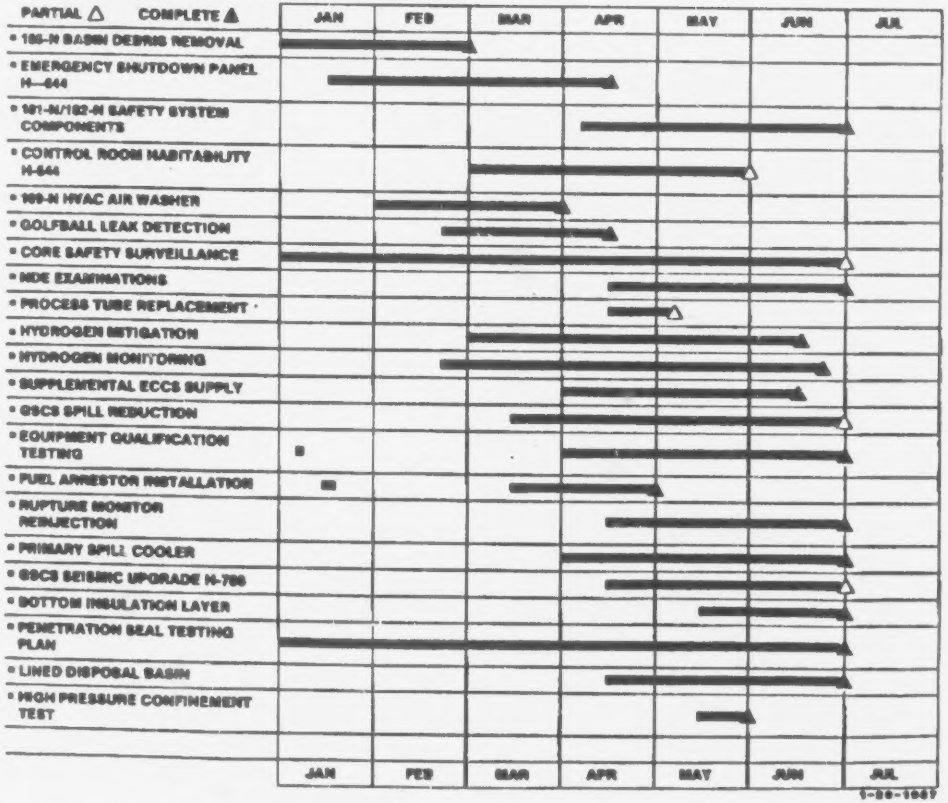

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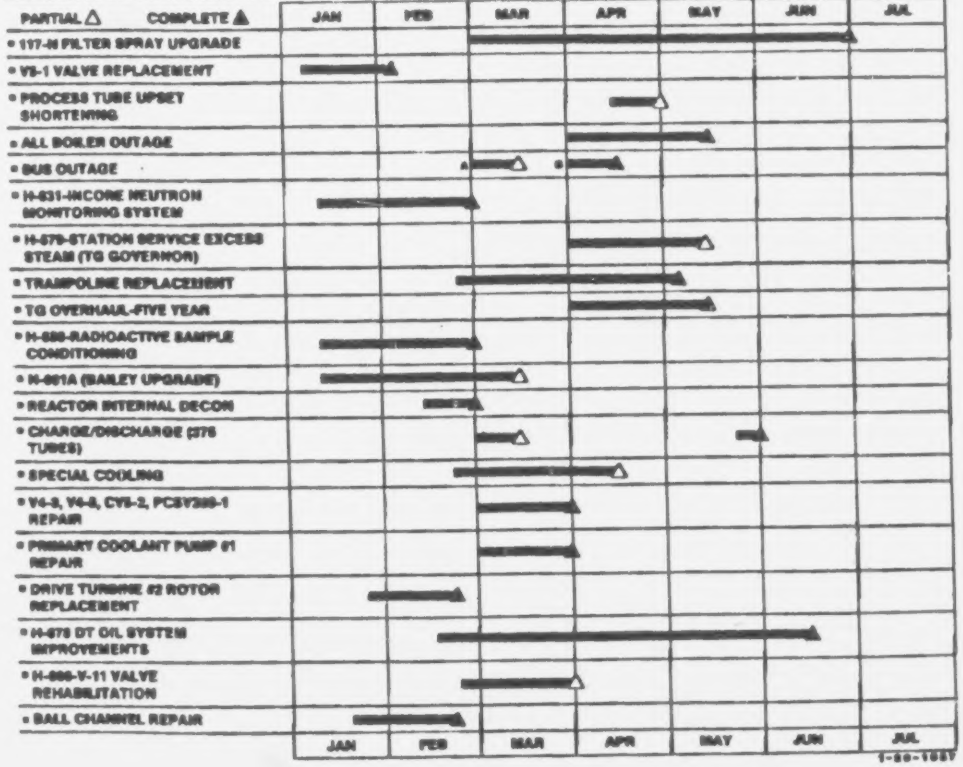

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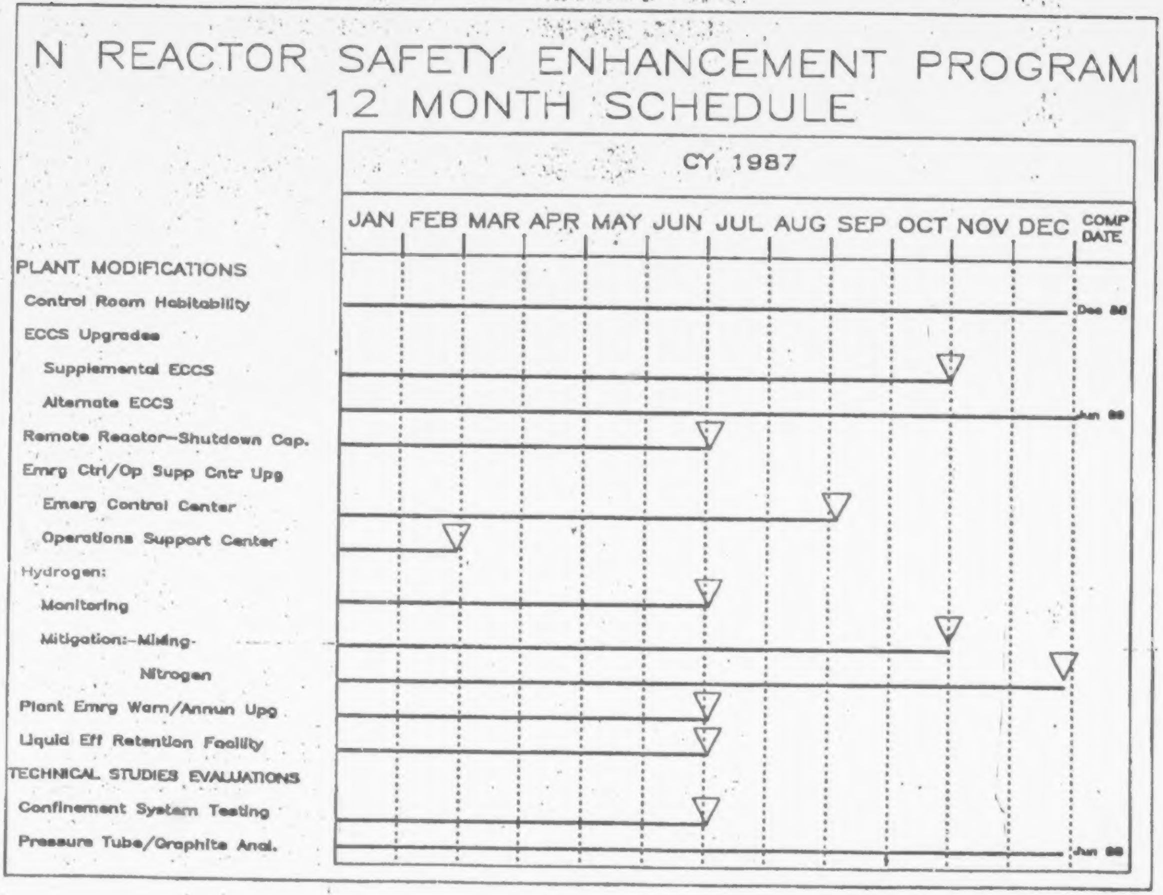
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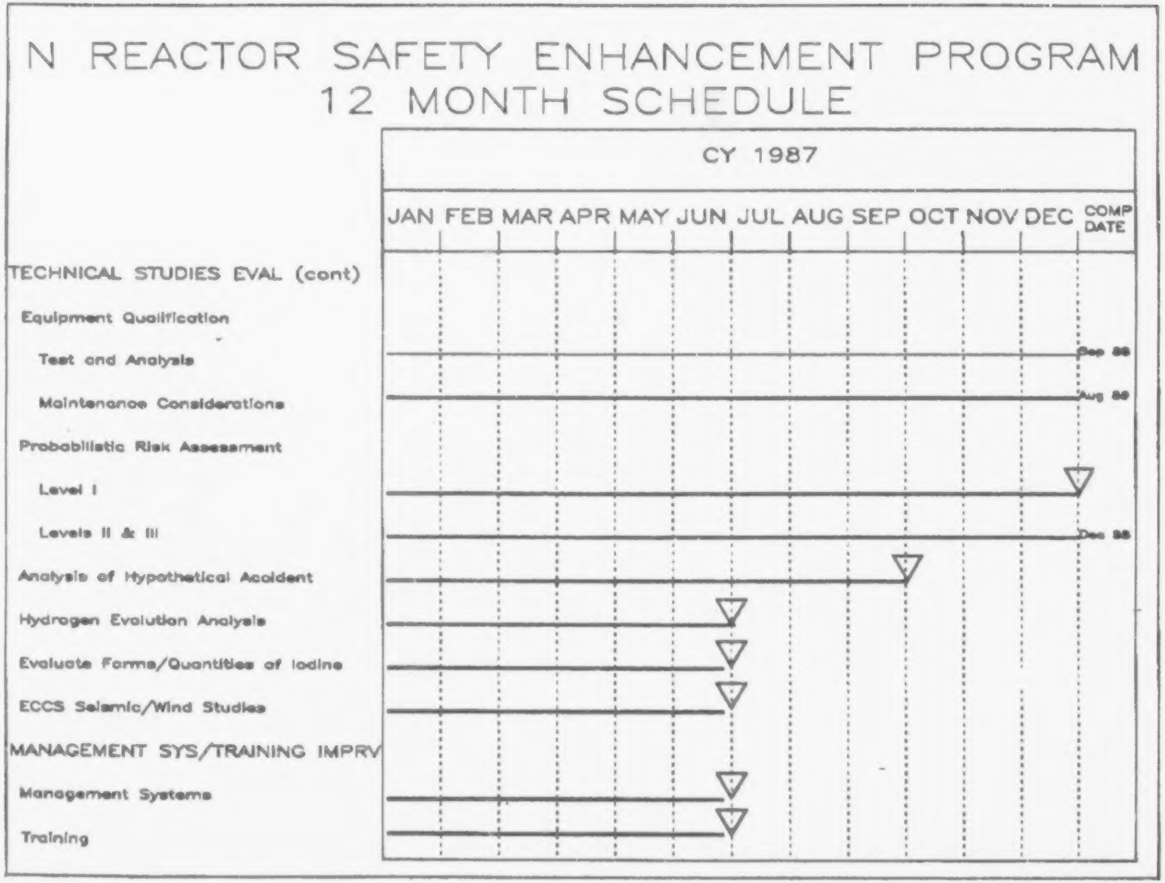
12 MONTH SCHEDULE



N REACTOR SAFETY ENHANCEMENT PROGRAM
12 MONTH SCHEDULE

Senator EVANS. Thank you very much.

Senator FORD. Thank you, Senator Evans.

Senator Domenici, did you have some questions of the Secretary?

Senator DOMENICI. Thank you, Mr. Chairman. I really appreciate the opportunity to ask a few more.

Mr. Secretary, let me first say to you in all sincerity, and I hope you know this, I believe you have grown in this job and I am very proud of what you are trying to do with your Department.

I am sure that when you took the job many people were skeptical, because we had a stereotype as to who ought to head this Department and you did not fit it. But I believe under very difficult times, with a very difficult Department, you are doing a very good job. And I do not want the few questions I am going to ask you here, that are a little bit tough and appear to be somewhat combative——[Laughter.]

Secretary HERRINGTON. First let me say thank you, and then you can ask your questions. [Laughter.]

Senator DOMENICI. Mr. Secretary, let me make a suggestion. I really believe that, whether the Department of Energy likes it or not, you wear a very different hat than the people of this country understand. And I submit it might be different than the President, his science advisers, and maybe the scientific community of this country understands.

Mr. Secretary, you are perceived by the largest group of scientists in the United States to be the manager of their facilities and their lives. And that is an extraordinary role in these United States.

Now, you have seen those labs, with those thousands of scientists, multi-disciplined, charged with keeping this country safe. And I know that you have left them, at least the ones I visited, with a very high degree of confidence, and I think, without being ashamed to say this here, that you are very proud of what you saw in terms of the scientists, the facilities, and what they do.

Now, having said that, I really urge, Mr. Secretary, that in the ensuing couple of years that you really put that hat on with this Administration and with the science community of this country, and that you become an advocate for these national labs, not just Los Alamos and Sandia, as prospects for keeping America competitive.

That is the new buzzword, and that requires the best science around and science transfer, which we call technology transfer. And I really honestly believe there is more prospect for that occurring if these labs are used, utilized, and if you advocate it, than almost anything else going.

Having said that, let me just remind you the President is speaking of a people to people science program in his National Science Foundation approach, swapping scientists between private sector and public sector, but principally universities.

People to people of that sort started with your labs. They started a few years ago exchanging their scientists with private sector scientists and vice versa, to the enhancement of both.

I think it is a marvelous idea to be expanded, and I hope you will wherever you can actively remind people that you already have some models in the national labs. Now, you stop me at any point if you want to disagree, but I really believe that is true.

Now, with reference to technology transfer, the President in his message on competitiveness has suggested that an executive order is in order to pursue technology transfer. Now, Mr. Secretary, I think you think that we have changed the laws, modernized and updated the regulations, such that technology transfer is at ease in your labs versus the private sector with reference to licensing, royalties, utilization.

I want to tell you, Mr. Secretary, it is not. It is cumbersome, it is difficult, and it is not occurring in the right proportions to the dollars being spent. And it is truly a shame.

It is not your fault, but I urge that you keep working at it, because it is locked up in these labs and it ought to get out. And I urge that you push hard when the Defense Department resists technology transfer because of defense-minded people in the Department.

We do not have to give up our secrets to make country transferable, and any approach that makes it more difficult in this Senator's opinion is absolutely wrong-headed, and we ought to move it in the other direction and rapidly.

There are already existing models on how to do it, and none work perfectly. Oak Ridge is trying. They were privately managed and they are slightly ahead, but it is not moving as rapidly as it should.

Marrying up private sector and universities to the labs has a chance of accelerating the movement of ideas, which is indeed tech transfer. Your labs do not only work on defense. Some of the most significant health breakthroughs have occurred in the labs that you manage, and they are very close because physics is inventing the third generation of scanners that will look in our brain and tell us maybe how you learn to think, and it may tell us whether there is a peculiarity in the brain of a schizophrenic, thus permitting us to find some cures.

I mean, it is just profound what is out there. Now, having said that, let me just urge that you do everything you can in that regard. You have some great scientists in the labs and the labs feel comfortable, sort of, managed by you because you have successors to AEC and successors to ERDA.

Now, having said that, let me move to uranium, where you obviously cannot nod affirmatively, as you have now, because you and I probably disagree. First, Mr. Secretary, I do not think you have legal authority to transfer $231 million in excess revenues to the treasury in partial payment of the so-called unrecovered government investment in enrichment facilities.

I believe you are precluded in last year's appropriation bill from doing that.

Secretary HERRINGTON. Our answer is that we agree with you and we are making a legislative proposal to allow us to do that.

Senator DOMENICI. All right. Then to the extent that we do not agree, then that $231 million is in the asset column of revenues from uranium enrichment in the 1988 cycle, is that correct?

Secretary HERRINGTON. It should be, yes. I think it is, but it should be, on that proposition. On that proposition, it should be still on the asset side.

Senator DOMENICI. I am not saying we have $231 million to spend. That is a very complicated issue. But clearly, you plan to transfer it account-wise to the general treasury.

Mr. Secretary, there is a story here from Wyoming, I think, that says there was a New Mexico district court ruling on uranium imports. That is not correct; it is a Colorado district court.

Nonetheless, there is a Federal district court opinion that says that you cannot import any more uranium because of the statute that says if there is a non-viable industry you have a responsibility to protect it.

Secretary HERRINGTON. Is that a new one?

Senator DOMENICI. No, sir. That is the one that is on appeal.

But this story says it is a New Mexico opinion. I am really saying it is not. It is a Colorado opinion.

Secretary HERRINGTON. You scared me there for a minute.

Senator DOMENICI. Mr. Secretary, what are you going to do if the circuit court sustains that proposition and says that you cannot import uranium?

Secretary HERRINGTON. Talk to my lawyers.

Senator DOMENICI. Is there any chance that you would agree to try to work something out with the Congress if indeed the circuit court of appeals says you have to stop importing uranium?

Secretary HERRINGTON. I think that, regardless of what the circuit says, we need to sit down with the Congress and work something out. The current situation is a mess.

Senator DOMENICI. Now, Mr. Secretary, I have suggested that you wear a hat with reference to science. I suggest you also are charged with wearing a hat with reference to uranium policy. The statute says this country is supposed to have a viable industry.

I commend you. You told us when you came before us for confirmation that it was very difficult for you to sign reports that were not true, and so you are the first Secretary that finally put his John Henry on a report that says we do not have a viable uranium industry. You remember that?

Secretary HERRINGTON. I remember it well.

Senator DOMENICI. You did not find any new ways to define viability. It was clear that when a state like mine has no operating uranium mines for the first time in 48 years and they were supplying 85 percent of the uranium just 15 years ago, that unless there is some new huge find someplace, we are hurting.

Now, Mr. Secretary, what if I were to tell you that the reason, one of the reasons Canada has a viable uranium industry is because the country of Canada guarantees the price of uranium to their producers by forcing their utility companies to buy uranium from Canadian suppliers only under long term contract with a fixed price?

And if I were to tell you to go ask those mining companies if that is the reason that they are fully operational, and you found out that that was the case, would it cause you some concern about our Trade Representative's approach, that there is no problem with uranium, this is a free and open market, and it does not matter what happens to the mining companies and the workers here in our country?

Secretary HERRINGTON. First, I would not be surprised if that was true. If you told me that, I would not be surprised.

Secondly, it would cause me some concern.

Senator DOMENICI. Mr. Secretary, I believe it is the case. I believe you can go to a uranium mining community in the country of Canada and find, number one, fully operational mines; number two, less rich than mines in New Mexico and Wyoming, which has been the excuse in the past, the weakness of the quality; and you will find that they are absolutely guaranteed $55.

And you ask them where, and it is because their utility companies are forced to sign up in advance and buy theirs, and the price is set. I urge that you look into it. I think it is an absolute shame that we have a law on the books saying we are supposed to have a uranium industry—we do not have to reinvent that one; it is there—and that we just sit by and say apparently it does not make any difference.

Now, one last one. We have a little small program in the Department of Energy for two year colleges for minority students. Are you aware of that program?

Secretary HERRINGTON. I am aware of it. Let me dig out the facts here, unless you have it in front of you. I would accept your——

Senator DOMENICI. Well, you know it is not a big program, but up in our country it is pretty important, where we have super-scientists and a lot of poverty. We put about 300 or 400 students through that program. In this year's budget, it cuts it about 65 percent.

I wonder if you would confirm that.

Secretary HERRINGTON. I think we have it down at $3 million and we are cutting it or proposing to cut it 25 percent. So that would be roughly down to about $2.4 million.

Senator DOMENICI. What is that program called?

Secretary HERRINGTON. We have this under minority economic impact, under the Administration line item.

Senator DOMENICI. There is a separate one there called the honors program. Is that a subsection of that?

Secretary HERRINGTON. I am sorry, you are correct, the honors program, $400,000 in '87 as a base, down 50 percent.

Senator DOMENICI. I truly wish you would take a look at that. I know you have budgetary problems. I personally think it is one of the really fine examples of scientific facility in the area of minorities, where there are a lot of young people, showing that there is some concern for helping them try to match up in the future.

I think it is a mistake to cut it that much, and I would just urge that you take a look at it in terms of has it worked. And if you would not mind for the record giving us a report.

[The material referred to follows:]

The Department is proud of the accomplishments of the Minority Honors Training Program. Since 1982, approximately 2,800 total scholarships have been awarded to 1,250 financially needy minority honors students, training in energy-related technologies at nine two-year colleges across the country. These scholarships provide for tuition, books, tools, laboratory fees, miscellaneous enrollment fees and bus transportation, to minority honor students training in such energy programs as computer science, engineering technology, electronics-electrical technology (including robotics), laser optics, computerized numerical control machining, etc.

As of February 6, 1987, over 80 percent of all honor graduates that have participated in this program have been placed into jobs. In New Mexico, the Department has helped to establish and develop linkages between thirteen industrials, Kirtland Air Force Base and one of the colleges (Luna Vocational Technical Institute, LVTI). These industrial linkages have provided for better job opportunities for the honor graduates through industrial cooperative training, specialized training, summer and full time employment, as well as providing equipment donations to LVTI.

However, due to competing resources and because the program has been in existence for five years, the Department proposes to phase back this program.

Senator **Domenici**. If there is some justification aside from pure budgetary, I would like to know.

Secretary **Herrington**. All right. I think it is pure budgetary.

Senator **Domenici**. I have nothing further, Mr. Chairman.

Senator **Ford**. On the small projects, down in Kentucky we have a saying that you swallow camels and choke on gnats. And so they are choking on gnats in these small projects.

Mr. Secretary, you have been a good and patient witness today and we thank you for that.

Senator **Evans**. Mr. Chairman, there is just———

Senator **Ford**. Oh, come on, professor.

Senator **Evans**. Just one other question.

Senator **Ford**. That will remind you of another one. Submit it in writing.

No, go ahead. I am just kidding.

Senator **Evans**. I had forgotten to ask it earlier. The $547 million, I think that is the figure of demand charge you have to pay to TVA?

Secretary **Herrington**. Yes, $550 million rounded.

Senator **Evans**. You have to pay whether you take it or not. If you took it, can you resell it?

Secretary **Herrington**. No, I would say not.

Senator **Evans**. Why not?

Mr. **Rossin**. That does not include the energy. That is just a demand charge.

Senator **Evans**. But the demand charge coupled with the energy charge is what someone else has to pay for energy.

Secretary **Herrington**. We would get charged additional for the use.

Senator **Evans**. I understand that.

Secretary **Herrington**. And we would probably not be able—we do not get any break on the energy price that we pull out of TVA. So I would assume if we resold it we would have to resell it at a wash.

Senator **Evans**. Well, maybe so. Everybody else has to pay a demand charge, too, I would guess.

Secretary **Herrington**. Ours is pretty big.

Senator **Evans**. I know it is, for a lot of electricity. I am just curious whether there was any alternative.

Senator **Ford**. Dan, TVA is boundary-bound, and the plant that is specifically there to furnish energy for the Paducah plant, for instance, is within that boundary. And I think that would limit their ability under the law.

Senator **Evans**. Thank you.

Senator **Ford**. Mr. Secretary, thank you. And if you would look at your schedule and see about the second week in March, we would be delighted to have you back, and maybe we can get together some time between now and then.

Secretary **Herrington**. Thank you, sir.

Senator **Ford**. On behalf of the Chairman, this hearing is adjourned.

[Whereupon, at 5 p.m., the hearing was adjourned.]

APPENDIX

RESPONSES TO ADDITIONAL COMMITTEE QUESTIONS

POST-HEARING QUESTIONS AND ANSWERS
(From Majority)

Relating to the

FEBRUARY 18, 1987 HEARING

Before the

COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

WITNESS: SECRETARY HERRINGTON

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 1(a): Mr. Secretary, the biggest problem DOE faces in becoming competitive in uranium enrichment is the need to get its price for enrichment services - SWUs - in line with the competition. What is your current SWU price?

Answer: The current price is $119 per SWU, except for deliveries under the incentive price offer, which are $90 per SWU. The incentive price offer was made available for the top 30% of contracted enrichment services for customers who elect to contract for 100% of their requirements from DOE (vs the minimum of 70% under the US contract).

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 1(b):	What is the price offered by the competition?
Answer:	Competitors do not publish their prices; rather, they negotiate prices on an individual basis.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 1(c): By EURODIF?

Answer: Eurodif does not publish their prices. Eurodif negotiates prices on an individual basis. We understand that they are offering prices in the $90 to $100 per SWU range to capture new sales.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 1(d):	By URENCO?
Answer:	URENCO does not publish their prices. URENCO negotiates prices on an individual basis. We understand that URENCO is offering prices in the $90 to $100 per SWU range for new sales.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 1(e): By the Soviet Union?

Answer: The Soviet Union does not publish the price charged for providing enrichment services. Like other foreign competitors, the Soviet Union negotiates prices on an individual basis with each enrichment customer. The Soviets primarily sell enrichment services to help them acquire hard currency. As a result, their prices tend to be the lowest available on the market and compete with short-term spot sales.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 1(f): On the secondary market?

Answer: Secondary market prices are not published, but are negotiated between the buyer and seller. There is no firm price for secondary market transactions. Since sales on the secondary market must compete with primary suppliers, prices are at the same level. NUEXCO, a uranium brokerage and consulting firm, does publish a secondary market price of as low as $80 per SWU.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 2: By law you set your SWU price to recover your costs. This year your revenues are projected at $1.3 billion. How much of that will you give back to the Treasury?

Answer: The Department's FY 1988 budget request for the uranium enrichment program assumes revenue collections will be approximately $1,301 million and outlays will be approximately $1,070 million. If the estimated revenues are collected and outlays occur as projected, it will result in a return of $231 million to the Treasury.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 3:	How much of that will you pay to TVA for electricity you aren't going to use?
Answer:	If DOE is unable to obtain relief from TVA demand charges for power not taken, it is anticipated that of $1,070 million in program outlays planned for FY 1988, $549.3 million will be paid to TVA for power not purchased.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 4:	How much is interest on the so-called "program debt"?
Answer:	In arriving at costs to be recovered in the enrichment services charge, we include imputed interest on the unrecovered Government investment. The interest rate has been set at 6.3 percent. For FY 1986, interest on the unrecovered Government investment was $204 million.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 5:	How much is the actual factory cost of producing a SWU?
Answer:	The factory cost of production for each of the 7.85 million SWU which were produced in FY 1986 was $68 per SWU. The components of this cost include $46 per SWU for power and $22 per SWU for operation. Excluded from the factory cost of production is the $55 per SWU spent to pay demand charges for unused power to the Tennessee Valley Authority. This brings the total average cost of SWU production in FY 1986 to $123 per SWU. (Note that to meet sales requirements an additional 2.5 million SWU were sold from inventory produced in prior fiscal years).

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 6: We could break down the SWU price you are charging in terms of these costs. How much of the price is actual factory cost--in $ per SWU?

Answer: Section 161.v. of the Atomic Energy Act requires that the charges for enrichment services recover the Government's costs of providing enrichment services over a reasonable period of time. The major cost components include factory costs, demand charges to TVA, depreciation costs, interest costs, overhead costs, costs relating to inventory sales, and losses from prior years. In arriving at annual prices, we estimate these costs over a rolling, 10-year period and set prices to demonstrate recovery of these costs by the tenth year.

The annual uranium enrichment budget account includes budget authority and budget outlays for factory costs, other operating costs, and research and development costs. The budget authority and budget outlays for these items are offset by revenues, with excess revenues (over budget outlays) being returned to the Treasury as a payment on the unrecovered Government investment in the enrichment enterprise.

Answer 6 (continued): Over the 10-year period, factory costs amount to almost $10 billion out of $16 billion in total costs. Factory costs vary widely from year to year as production levels fluctuate. Obviously, the more SWU's sold, the lower production cost per SWU since the majority of costs are fixed. The average factory costs over the 10-year period is about $70 per SWU.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 7:	How much are demand charges to TVA?
Answer:	TVA demand charges for power not purchased are about $550 million in FY 1988. TVA demand charges begin to decline in FY 1989 as the amount of power under contract decreases. Further annual decreases occur until 1994 when the current contract expires. Over a 10-year period beginning in FY 1988, we estimate that DOE will pay TVA up to $1.7 billion (out of total costs of about $16 billion) for power not taken. This amounts to about $13 per SWU, on average.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 8: For purposes of pricing, how much is Treasury repayment?

Answer: Payments to Treasury are not a cost to be recovered as such. For purposes of annual budgeting, payments to Treasury are determined to be any excess of revenues received over budget outlays. In FY 1988, the payment is estimated to be $231 million.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 9: How much is interest on the so-called debt?

Answer: Interest costs are imputed on the unrecovered Government investment at a 6.3 interest rate. Over the 10 year period, interest costs are about $1.5 billion of the $16 billion total. This amounts to about $11 per SWU on an average.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 10: What else is there?

Answer: All other costs consist of those relating to use of the inventory, miscellaneous overhead costs, and losses from prior years. Over the 10-year period, these costs represent about $13 per SWU, on average.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 11: What are you doing to reduce the factory cost?

Answer: Although gaseous diffusion is a mature technology, opportunities to reduce production costs and improve operations still exist. At the Paducah plant in FY 1986, productivity increased 1.6 percent (SWUs produced per unit of power consumed), bringing to 3 percent the improvement over the past 2 years. DOE continues to routinely review gaseous diffusion plant operations to ensure continued cost reductions and efficiency improvements, e.g., the contractor Performance Improvement Program, a program that rewards employees for suggesting and implementing improvements. In addition, an estimated $5 million has been saved in FY 1986 as a result of adjustable vane compressors being installed at both plants to improve cascade efficiency, especially at low power operation.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 12: Isn't the AVLIS program a big part of reducing the factory cost?

Answer: The AVLIS program has no impact on the factory costs of separative work production today.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 13: Haven't your people told the utilities to renew their contracts because AVLIS is going to make the price come down in the future?

Answer: AVLIS is not a factor because the earliest date by which this technology could be deployed is the late 1990s. The strategic value of the AVLIS technology is long-term in nature--deployment could enable the United States to place a "cap" on the cost of producing SWUs in the world market. Under current conditions, however, the two gaseous diffusion plants (GDPs) at Portsmouth, Ohio, and Paducah, Kentucky, have sufficient capacity to meet DOE's production requirements through the end of the century. Events such as the enactment of acid rain legislation (which would raise our power supply costs) or a major preemptive initiative by foreign enrichers, could dramatically change the competitiveness of the GDPs before the end of the century. In such an event, the ability to deploy AVLIS would provide the United States with a distinct competitive advantage with a nearer-term market impact.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 14: What are you doing about the TVA demand charges?

Answer: The TVA demand charge is the largest annual financial burden on the enrichment enterprise. In FY 1988, the Department estimates it will be billed approximately $550 million by TVA for unused capacity according to TVA's interpretation of the terms of contracts entered into between TVA and DOE in the late 1960's and early 1970's. The demand charge is $510 million in FY 1987. Through FY 1986, the Department has paid about $1.3 billion to TVA for unused capacity, and if there is no renegotiation of the DOE obligations with TVA by the time the contracts expire in March 1994, DOE will have paid about $4 billion to TVA for unused capacity.

The cost for demand charges expected to be billed by TVA to the Department in FY 1988 are over one-half of the projected revenues for the uranium enrichment enterprise. DOE is particularly concerned that from 1985 to 1987 the effective capacity charge rate established by TVA and paid by the Department has increased by about 35 percent. This

Answer 14 (continued): occurred despite the fact that DOE has notified TVA many times that it will not require the power that TVA would not be required to generate. TVA sets its own rates and the possibility exists that TVA's rates could continue to rise dramatically. Thus, the future payments to TVA represent an indeterminate liability.

The Department has been quite active in the past year in reviewing the charges being imposed by TVA for DOE's unused capacity. In July 1986, the Department officially participated in TVA's FY 1987 rate-making process. DOE proposed a revised rate structure to TVA which would have made TVA's rate structure more consistent with those of most of the other large nuclear utilities in the country. This proposed rate structure would also have reduced the amounts billed to DOE for unused capacity by over $200 million per year. TVA rejected DOE's proposal, stating that the Board's determination on cost classification in January 1985 is proper and continues the traditional treatment of plant investment costs as demand-related costs. We have discussed the results of our studies with TVA. TVA has not adequately responded to our repeated requests to discuss its rate-making process in sufficient detail to answer the questions raised by our studies.

Answer 14
(continued):

Additional studies by the Department during the past year have focused on identifying the extent to which TVA's rates have resulted in charges which are in excess of those costs incurred by TVA to stand ready to deliver the no longer needed power. These studies have confirmed our conclusion that TVA is overcharging DOE.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 15: I have a copy of your February 12 letter to TVA Chairman Charles Dean. What is that all about?

Answer: DOE Under Secretary Joseph F. Salgado wrote TVA Chairman Charles H. Dean, Jr., on February 12, 1987, advising him of the Department's concerns with the amount and composition of the demand charge payments being billed by TVA. The letter stated that DOE believes that TVA is billing DOE for charges which DOE is not obligated to pay under the contract and requested that TVA agree to meet with DOE officials in the near future to discuss this situation. As a result, the DOE Assistant Secretary for Nuclear Energy, the DOE General Counsel and TVA Chairman Charles Dean met on February 18, 1987, to discuss the situation and agreed to initiate staff level discussions to explore DOE's concerns in detail. These discussions began February 24.

Committee Note.--The letter referred to follows:

Department of Energy
Washington, DC 20585

February 12, 1987

Dear Mr. Dean:

I am writing to you about the inability of the Department of Energy (DOE) to come to a satisfactory agreement with the Tennessee Valley Authority (TVA) on the amount and composition of the demand charge payments being assessed under contracts entered into in the late 1960's and early 1970's. We believe TVA is billing DOE for charges which DOE is not obligated to pay under the contract. These demand charges are nearly one-half of costs of production of separative work in fiscal years 1987 and 1988.

The contract between DOE and TVA obligates the Department to pay demand charges associated with the costs TVA incurred to stand ready to deliver DOE's power requirements covered by the contract. However, TVA is billing the Department not only for these costs but also for costs TVA is incurring for cancelled nuclear plants which are not needed by the system and were not associated with the Department's power contracts. In addition, the Department is billed for the costs of deferred nuclear plants intended to meet future system requirements and, thus, are not the Department's responsibility.

As a first step towards resolution of this problem, I suggest that a meeting be arranged between you and Dr. A. David Rossin, Assistant Secretary for Nuclear Energy. I believe that prompt attention to this matter will foster a constructive discussion that will resolve this problem and avoid any further irreversible damage to the uranium enrichment enterprise. Dr. Rossin will call to arrange these discussions.

Yours truly,

Joseph F. Salgado
Under Secretary

Mr. Charles H. Dean, Jr.
Chairman, Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, Tennessee 37902

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 16: Is this the beginning of an attempt to renegotiate those charges?

Answer: This is a renewal of an attempt by DOE and TVA to determine if a mutually acceptable remedy to the demand charge problem can be agreed to.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 17: How can this program become price competitive if it is saddled with a multibillion dollar debt?

Answer: While there are many uncertainties impacting our ability to make the payments, we can make annual payments to the Treasury and still offer competitive prices that will allow us to retain our current market share. The timing and magnitude of annual payments are tied to sales levels and the rate of decrease or possible relief of payments to TVA for power not purchased.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 18: If we are going to try to recover $3.5 billion or, as the GAO wants, $8 billion, doesn't that doom our chances of becoming price competitive in the near term?

Answer: It would be impossible to recover $8 billion and remain price competitive. Recovery of $3.3 billion (as of the end of FY 1986) will be possible and we can continue to price competitively and retain our market share if projected sales are realized.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 19: Shouldn't the goal be to become price competitive, so we have a business that can pay off its debts whatever they are--doesn't that come first?

Answer: Yes, offering competitive prices is necessary to retain a financially healthy, long-term business and to maintain a viable domestic source for enriching uranium. Since 1984, DOE has consistently pursued a competitive pricing strategy as the cornerstone of its efforts to ensure the long-term stability of the enterprise. The Administration desires to divest the uranium enrichment enterprise. A private sector business would have to have prospects for competitive pricing and attractive return on investment.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 20(a): The FY 1987 Continuing Resolution in the part dealing with Energy Supply Research and Development says "$684,000,000 shall be derived from transfer from the Uranium Supply and Enrichment Activities provided in prior years and shall be available until expended..." and then it lists a whole bunch of projects. How did the enrichment program that needs to cut its costs so desperately come to have $684 million in "extra" funds?

Answer: The funds appropriated by the Congress gave the Department the authority to contractually obligate the Government to pay for specific work. Uranium enrichment budget requests are submitted up to a year or longer in advance of the planned accomplishment of the work, based on projected revenues for that year. Sometimes in a particular fiscal year, actual revenues (which offset expenses) are less than the appropriated funding level. This results in excess appropriated funds to the Department which are not used consistent with our cost recovery principle. The Department is required under the Budget and Impoundment Control Act to identify and either request the deferral, recision or reprogramming of funds appropriated for those activities the Department no longer plans to accomplish. Only Congress and the President have the authority to decide the ultimate disposition of funds identified as excess.

Answer 20(a)
(continued):

The enrichment program has been able to avoid using these excess funds by cutting costs, primarily by cancelling the Gas Centrifuge Enrichment Plant (GCEP) construction project, placing the Oak Ridge gaseous diffusion plant in standby, and reducing its power purchases. Congress, through enactment of the FY 1987 Continuing Resolution, transferred $684,158,000 of these funds originally appropriated in prior years to the Uranium Supply and Enrichment Activities account to offset FY 1987 appropriations for Energy Supply Research and Development activities.

These funds are excluded from the uranium enrichment account when they are transferred and are not considered in annual financial statements for the enterprise or in determining the amount of the unrecovered Government investment.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 20(b): Isn't this an example of the enrichment program being used as a bank to fund other unrelated programs?

Answer: No. As mentioned in the answer to your previous question, the decision to cancel the Gas Centrifuge Enrichment Plant construction project, place the Oak Ridge gaseous diffusion plant in standby, and reduce power purchases resulted in reducing the costs of the program consistent with actual revenues. The Department is required under the Budget and Impoundment Control Act to identify and either request the deferral, recision or reprogramming of funds appropriated for those activities the Department no longer plans to accomplish. Only Congress and the President have the authority to decide the ultimate disposition of funds identified as excess.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 20(c):	On February 4, 1987, the *Energy Daily* published an article about the use of the uranium enrichment account as a "slush fund". Is it true that costs can be, and are, charged to the uranium enrichment account to support a variety of programs at DOE headquarters and at operations offices?
Answer:	No. The Department may not unilaterally charge non-enrichment related activities to the uranium enrichment budget account. The only uses of excess uranium enrichment budget authority to support other DOE programs are those which have received specific Congressional approval either in Appropriation Acts or approved reprogramming actions. And when that is done, it is as if these funds were never earmarked for the enrichment program.

Committee Note.--The article referred to follows:

The Energy Daily

915 15th Street N.W.
Suite 400
Washington, D.C. 20005
202-638-4260

Wednesday, February 4, 1987

Volume 15, Number 21

Linden Slams The "Gap Theorists"

BY AVIVA FREUDMANN

The natural gas industry needs to "avoid being stampeded again by an energy crisis mentality," Henry Linden, past president and one of the founders of the Gas Research Institute, told a group of gas executives in Washington on Tuesday. Linden told the meeting that he has "negative words about reviving the concept that there is a limitation on hydrocarbon resources, even in the lower 48 states."

"We have a whole new crop of resource pessimists that are coming up the line, especially in the Georgetown-Harvard corridor," Linden remarked. "These people are going to kill the gas business. We need to fight against gap theories."

Linden said that supply has been constrained by demand, and that the likelihood is that shrinking demand, not vanishing supplies, will be the problem. "Price elasticity is incredible," he said. "Resource pessimism has proven to be wrong, wrong, wrong everywhere in the world."

In Linden's view, federal tax policy should be the nation's "number one instrument" to help the oil and gas production business in its present difficulties. "Why do we treat the extraction industry as if it were part of OPEC or an economic enemy?" he asked.

Technology, including the development of resource recovery technologies, will be a source of future prosperity for the natural gas industry, Linden continued. "Advances in technology ought to be nurtured. Why is there only $14 million for the geo-sciences [in the DOE budget]? That's not a balanced portfolio."

Through secondary gas recovery, the industry can recover an additional 600 trillion cubic feet of natural gas by the end of the century, Linden predicted. "The potential for natural gas in the lower 48 is fantastic," he insisted.

Linden said that electric utilities should bet some of their resources on combined-cycle plants. "There is nothing between us and success except our pessimism and that of our customers, and we need to fight that," he told the meeting. "Let's convince our industrial friends and electric utility friends that their least cost method is to go with natural gas."

In-Fighting Rages At DOE Over Privatization Of Uranium Enrichment

BY RICHARD McCORMACK

Furious in-fighting is taking place among senior staff in the Department of Energy over the issue of whether or not to privatize the nation's uranium enrichment program.

In two weeks, DOE is expected to submit a report to Congress outlining its proposal. The report is written. But strong camps within the department and the administration are arguing against the proposal, which calls for the setting up of a government corporation, according to a number of Washington sources. No one involved with the row is willing to be named.

"It is almost certain that a recommendation to restructure the uranium enrichment business will not come from DOE because of widespread internal opposition," says an official. Even though some of the program's top managers strongly support privatization, the effort "seems certain to fail because of self-interest and bureaucratic inertia," he says.

Some at the energy department want the enrichment program to stay as it is currently structured because it helps fund millions of dollars worth of other activities, including portions of programs carried out by DOE's inspector general, its general counsel and its office of management and administration.

But according to sources, nowhere is bureaucratic self-interest more apparent than at DOE's Oak Ridge, Tennessee, operations office. While about 50 officials are paid by appropriations from the enriched uranium account, the sources say,

(Continued on next page)

Few Pleased By Hodel's Plan For California Offshore Leases

Environmentalists, members of the California congressional delegation and the oil industry have heaped criticism on an Interior Department draft proposal that would open up about 6.5 million acres offshore California to oil and gas leasing. Two California representatives quickly introduced legislation on Tuesday that would establish a 200-mile-wide offshore ocean sanctuary along the California coast where oil and gas development would be prohibited.

But California Governor George Deukmejian and an influential congressman on the important House Appropriations Committee are more supportive of the plan offered by Interior Secretary Donald Hodel. "When I used to practice law, we

(Continued on page 3)

In-Fighting Rages At DOE...

(Continued from page one)

more than 500 other employees are indirectly paid by the enrichment account, which is described as a "slush fund" or a bank account from which they can draw at any given time to fund other programs.

One option for the administration as it struggles to resolve the row is a proposed 18- to 24-month study using hired consultants. This option is expected to be in the report submitted to Congress. "The secretary's office will probably decide to send up a fairly general report that will say we need to restructure the program, that we're not entirely sure how and that we're looking into it," said a Reagan official. "That's about all Congress will get this go around."

But if lawmakers decide that the proposed study is a subterfuge and a delaying tactic, "then it would probably come to the point of writing into law what their program would look like," said one well-placed congressional aide, who has been assured that DOE will meet the February 15 deadline. In the past, he added, Congress has avoided getting involved in the program "because it's just not a good way to manage it, from their standpoint or ours."

"If they want to stonewall, that's their choice. But we have a choice too," said the aide. "We could write a statutory limit in an appropriation on how much they can spend. We write that bill once a year. So every time they want to change their program, they would have to amend the law....This is done all the time."

However, a detailed report that would effectively delay privatization might be just what is needed because there is a multitude of complex questions that has to be answered. For instance, DOE has not yet arrived at a price for the uranium enrichment enterprise. There is also an unrecovered debt that some estimate as high as $8 billion. If it is this much, "then it's probably a bankrupt business right now," said one congressional source.

A two-year report would also give the administration an opportunity to save face "and slink out of Washington" before any proposal is decided upon, said one observer of the nuclear fuel industry.

The administration "shot itself in the foot" by making repeatedly strong pronouncements favoring privatization and not following up on them, says one congressional assistant. The rhetoric has only caused confusion among DOE's enrichment customers. Duke Power Co. and Consolidated Edison Co. of New York are both expected not to sign new ten-year contracts until the dust settles.

For some in Congress, probably the best thing for DOE to do would be to do nothing. "And if they're not going to do that, then they ought to say up front that they're going to sell the business, come up with a legislative proposal and get all the uncertainties behind them," said the congressional aide.

Administrators of the enrichment program want to create a government corporation through the sale of stock. They don't look favorably upon selling assets outright to private companies. But top level Reagan Administration officials aren't enamored with this approach. "I don't think it's a good idea for DOE to address all the details of the financial aspects of it," said one member of the Reagan team.

Instead, DOE should get congressional approval to sell the remaining assets and retain an investment banking firm to put together an evaluation of the plants and to help figure out how to sell them off, he said. Doing nothing is not an option because competition in enrichment is getting fierce and with its present structure, DOE is having trouble competing.

It is believed that the pressure for change will come from efforts by private concerns to open new domestic production facilities. Washington-based AEC Inc. wants to purchase the unused Gas Centrifuge Enrichment Plant, which was cancelled by DOE when it decided that a new enrichment process (Atomic Vapor Laser Isotope Separation) was a better way to go.

But DOE is resisting selling off the GCEP assets, arguing in part that because it was uneconomic for DOE it will be uneconomic for anyone else.

"That's ridiculous because one of the potential partners, Boeing, claims that they can produce machines cheaper and they're willing to take an equity partnership," said one industry source. The Boeing proposal is being reviewed by DOE's top management.

Plan To Boost Tax Bite On Alaska Oil

Democrat Steve Cowper, Alaska's new governor, has proposed a five-year deferral of the economic limit factor in the state's oil severance tax, as a way to raise revenue and help the state during a sharp fiscal crunch. The economic limit factor is a tax incentive that greatly lowers the state's nominal 15 percent severance tax on marginal oilfields. Cowper's proposal would double the effective rate of tax in the Kuparuk and Lisdurne fields on the North Slope and in Cook Inlet in southern Alaska. Alaska's revenues, 90 percent of which come from oil royalties or taxes, are estimated at $1.3 billion this year, about half of what they were in 1985. Cowper has proposed sharp budget cuts, the transfer of money from the earnings of the $8 billion Alaska Permanent Fund and several revenue measures, including the reinstatement of the personal income tax repealed in 1980.

Steam Generating Equipment Sales Boom?

Demand for steam-generating equipment will reach 3,850 megawatts in 1987, the American Boiler Manufacturers Association said at its midwinter meeting in Arlington, Virginia. The trade group explained its optimism (last year's orders were for only 1,839 MW) as being based on higher expected export sales. The cogeneration market has grown from 414 MW in 1984 to 1,067 MW last year, the group added. This year's orders are expected to be for 519 MW.

THE ENERGY DAILY IS A PUBLICATION OF KING PUBLISHING GROUP
Llewellyn King, Publisher, Grant Stockdale, Assistant Publisher.
PUBLISHED MONDAY THROUGH FRIDAY. COPYRIGHT 1987 (ISSN 0364-5274).
SUBSCRIPTION PRICE: $995 PER YEAR.
EDITORIAL STAFF
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QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 20(d):	Are over 500 DOE employees indirectly paid by enrichment customers through the enrichment account when their actual jobs have nothing to do with the program, as alleged in the article?
Answer:	The uranium enrichment enterprise must cover an appropriate portion of DOE indirect and overhead costs, just as other programs do. The uranium enrichment budget account does not include funds for the salaries of employees working on non-enrichment programs. DOE does not include any costs in the charge for enrichment service that are not related to the uranium enrichment program.

We are not aware of any basis for the "500 DOE employees" referenced in the article. At the end of FY 1986, there were 65 Federal employees funded in the Uranium Supply and Enrichment Activities budget account, 54 in Washington and 11 in Oak Ridge. An additional 214 Federal employees were funded through the Departmental Administration budget account--27 in Washington; 181 in Oak Ridge; and 6 in San Francisco.

The cost of these employees and related expenses was about $10 million, or slightly less than 1 percent of the total costs to be recovered in the price in FY 1986. This amounted to about $0.95 per SWU.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 20(e): How often has the Department proposed to reprogram enrichment account moneys for other uses in the Department? Please provide us with a list of such reprogramming requests and the total amount proposed to be reprogrammed and actually reprogrammed in each of the last three fiscal years.

Answer: As discussed in the answer to a previous question, funds become available because appropriated funds exceed the cost of work actually undertaken. For example, excess funds resulted from the June 1985 decision to cancel the Gas Centrifuge Enrichment Plant construction project, place the Oak Ridge gaseous diffusion plant in standby, and reduce power purchases. Reprogrammings and transfers of appropriated funds during fiscal years 1985 through 1987 from the Uranium Supply and Enrichment Activities account for other Departmental activities are contained in the following table.

(The information follows:)

Answer 20(e)
(continued):

REPROGRAMMING AND FUND TRANSFERS
URANIUM SUPPLY AND ENRICHMENT ACTIVITIES ACCOUNT
(FISCAL YEARS 1985-1987)

FY 1985	
Small Business Innovative Research.......	$ 1,408,000*
Geothermal Loan Program..................	25,000,000*
Energy Supply Research and Development...	60,000,000*
Subtotal FY 1985....................	86,408,000
FY 1986	
Small Business Innovative Research.......	1,370,750*
Energy Supply Research and Development...	200,331,022*
Environmental, Safety and Health.........	250,000**
Geothermal Loan Program..................	15,000,000*
Subtotal FY 1986....................	216,951,772
FY 1987	
Small Business Innovative Research.......	906,250*
Energy Supply Research and Development...	684,158,000*
Energy Supply Research and Development (Proposed).................	11,600,000***
Subtotal FY 1987....................	696,664,250
TOTAL....................................	$1,124,680,822

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*Transfer directed by Congress.
**Transfer requested by DOE and approved by Congress.
***At this date, $9,800,000 has been transferred.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 21: Doesn't it make sense to put uranium enrichment revenues in a revolving fund and specify their uses in law so that this program can be put on a sound financial footing?

Answer: To compete effectively with two versatile Eurpoean competitors, the U.S. enrichment enterprise would clearly benefit from being organized and empowered to act in a more businesslike manner. DOE is presently evaluating a broad range of options designed to restructure the enterprise. On February 17, DOE transmitted a report to the House and Senate appropriations subcommittees which responds to questions raised in the FY 1987 Continuing Resolution. A copy of the report is provided herewith. The concept of a revolving fund is not treated in the report, but the objective of such a fund would also be to put the enterprise on a businesslike basis.

The Department plans to submit a more specific recommendation by the end of March and is eager to work with Congress in the development of the optimum course and in crafting the requisite legislation.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 22: How can the enrichment program become a viable competitor when it is weighted down with so much baggage?

Answer: One of the major elements of DOE's successful recovery strategy has been to streamline its Production and Research and Development programs in order to reduce costs. On June 5, 1985, DOE announced that the Oak Ridge Gaseous Diffusion Plant would be placed in standby status and construction of the Gas Centrifuge Enrichment Plant would be terminated. As a result, staffing of the total enterprise has been reduced by over 60 percent, a reduction of approximately 7,000 jobs. These decisions have resulted in significant program cost savings. In addition, discussions are underway with TVA to determine whether or not the TVA demand charge can be reduced. The factory costs suggest that the GDP's can be competitive for a number of years to come if other costs, besides those of energy, were reduced. The TVA demand charge, for example, drops to zero in 1994.

In the future, institutional restructuring is needed to enhance the U.S. enrichment enterprise's ability to provide reliable and economical enrichment services to commercial customers and to U.S. defense programs.

QUESTIONS FROM SENATOR JOHNSTON

Nuclear Energy R&D

Question 23: How much of $336.4 million requested for DOE's nuclear energy R&D goes to programs that are solely for civilian applications?

Answer: Of the $334.2 million requested in FY 1988 for Nuclear Energy R&D activities, the only program elements that are solely for civilian applications are Light Water Reactors, for which $34.0 million is requested, and Advanced Reactor R&D, for which $70.7 million is requested.

QUESTIONS FROM SENATOR JOHNSTON

Nuclear Energy R&D

Question 24:	How much of DOE's nuclear R&D budget goes to programs that are primarily for the purpose of advancing technology to be used for military applications?
Answer:	Within the Nuclear Energy R&D decision unit, the only program element that primarily advances the technology to be used for military applications is Space and Defense Power Systems. The FY 1988 budget request for this program element is $96.0 million.

QUESTIONS FROM SENATOR JOHNSTON

Light Water Reactors

Question 25: Please explain how DOE will meet its goal of advancing current light water reactor (LWR) technology sufficiently to meet projected power demands in the early to mid-1990's with the limited amount of funding requested in the FY-88 budget?

Answer: The DOE light water reactor program is part of an integrated program with the industry to ensure that standardized, certified light water reactor plants, which meet the needs of the Nation's utilities, are available for deployment in the early 1990's. The majority of the funding for this integrated program is being supplied by the private sector. This non-Government funding supports specification and design of advanced light water reactors. DOE funding is focused to the essential, but complementary, tasks of performing supporting R&D on innovative features of these designs and on demonstrating the certification of the designs through the regulatory process. The program is closely coordinated with the Electric Power Research Institute (EPRI) and contracts are in place to execute key aspects of the work. The FY 1988 budget request for LWR technology is consistent with this integrated, complementary, cost-shared program.

QUESTIONS FROM SENATOR JOHNSTON

Advanced Civilian Reactors

Question 26: Please describe DOE's goals and strategies for meeting future needs for advanced civilian reactors.

Answer: The Civilian Reactor Development program has been focused from a multi-path strategy down to a more narrow approach. This approach is based on two distinct goals for two distinct timeframes--first, to support a coordinated Department of Energy (DOE)/industry effort to enable utilities to order reactors by the early 1990s; and, second, to develop the most promising alternative reactor system and its fuel cycle so that a competing technology will be available in the marketplace by the end of the century.

The logic, strategy, and major milestones to achieve these goals are contained in the strategic plan for the DOE Civilian Reactor Development Program, which was first published for comment in October 1985 and is currently being revised to reflect events in the intervening period and comments from the Energy Research Advisory Board (ERAB) and other reviewers.

The state-of-the-art LWR still represents the best avenue to revitalize the nuclear option so that new additions to nuclear power production can be operating before the end of this century. The Advanced Light Water Reactor (ALWR)

Answer 26 (continued): program is the cornerstone of DOE efforts that complement larger industry-funded efforts.

The Advanced Reactor R&D program goal is to develop the most promising alternative reactor system. The program is focused on modular, liquid metal-cooled reactor (LMR) designs. The reasons for focusing on the LMR are four-fold:

1. the LMR can become a viable alternative to LWRs around the turn of the century, providing additional passive safety features, needed flexibility and diversity in modular additions at a particular site, lower per unit capital commitments, and shorter lead times;

2. because most of the Department's nuclear R&D facilities are oriented toward liquid metal systems, focusing on the LMR will allow facility consolidation and cost reduction at the earliest prudent date;

3. emphasis on a single advanced reactor technology beyond ALWRs permits pursuit of a meaningful technical program within budget constraints; and,

4. the LMR offers the best path to meeting the long-term strategic objective to extend the uranium resource.

Answer 26
(continued):

The main elements of the program are (1) to concentrate R&D efforts on high-payoff areas that yield improved system economics, safety margins, and environmental benefits; (2) to share future development efforts with international and/or the private sector--international collaboration for research, development, and demonstration and private sector support for demonstration and commercialization (3) to select a single liquid metal-cooled reactor system in 1988 for further development; (4) to maintain the high temperature gas-cooled reactor as a future option through international R&D collaboration; (5) to emphasize R&D on the metal fuel cycle to confirm expected economic, environmental, and safety benefits; and (6) to maintain the oxide fuel cycle as the optional fuel cycle through international R&D collaboration.

QUESTIONS FROM SENATOR JOHNSTON

Advanced Civilian Reactors

Question 27: How can DOE be sure that the current focus on military and space needs will not detract from necessary R&D geared toward civilian applications?

Answer: These two major program areas--civilian reactor development and the development of power sources for space and defense purposes--are of vital importance to the nation. Each is managed and funded separately within the Department's Office of Nuclear Energy. Within the existing fiscal constraints, the Department's FY 1988 budget request strikes a balance that yields two lean, goal-oriented efforts. In so doing, certain space and defense energy efforts in FY 1988 have been reduced below levels projected last year and anticipated by our DOD and NASA partners.

The civilian program is paced appropriately to meet the long-term need for conserving uranium resources and to provide economic and attractive advanced certified reactor designs when the market does emerge. The Department will continue to sharpen the focus of the civilian program, implement an equitable cost-sharing program for the utilization of civilian facilities by others for the development of space and defense nuclear power systems, and conclude additional international cost-sharing agreements, all of which will improve the

Answer 27 (continued):	effectiveness and efficiency of the civilian reactor development program in meeting its goals.

QUESTIONS FROM SENATOR JOHNSTON

Advanced Civilian Reactors

Question 28: Isn't it true that the synergistic relationship between civilian and military/space programs that DOE describes is really more advantageous to the military sector than the civilian sector?

Answer: No. Both programs are being pursued independently because each meets important national needs that are significant elements of DOE's nuclear power development charter. The principal areas which are of mutual benefit to both programs are the use of existing nuclear facilities and the ability to draw upon an established base of technical and scientific expertise.

QUESTIONS FROM SENATOR JOHNSTON

Advanced Civilian Reactors

Question 29: What specific benefits are there for the civilian nuclear power industry from the military/space R&D programs being carried out by DOE?

Answer: Advances in fuels, instrumentation, materials and other technologies will be incorporated into the overall nuclear technology base to benefit all nuclear energy programs. It is also important to recognize that the space power program is primarily oriented toward the civilian space program and is not just important for defense applications. Currently, the focus is on such NASA efforts as providing power for scientific missions to the planets; however, as the use of space expands, space nuclear power may become important to the industrial sector also. Finally, the support provided by space and defense programs for nuclear facility services is important for the retention of key facilities for the use of both civilian and defense-oriented programs.

QUESTIONS FROM SENATOR JOHNSTON

Nuclear Waste Fund

Question 30: When does DOE plan to submit to Congress its budget amendment, raising its request for the nuclear waste fund to $725 million?

Answer: The budget amendment is currently under consideration within the Administration.

QUESTIONS FROM SENATOR JOHNSTON

Nuclear Waste Fund

Question 31: According to previous testimony by the Department of Energy, you plan to restart site-specific work toward a second repository if Congress fails to approve your mission plan amendments or fails to appropriate the full $725 million.

--If, for instance, Congress appropriates only $500 million for the waste program and no legislation is enacted approving the mission plan amendments, how would DOE allocate that $500 million to assure that both site specific work on the second repository and site characterization activities on the first repository are carried out on a reasonable schedule?

Answer: If Congress does not approve the Mission Plan Amendment and appropriates only $500 million in FY 1988, the Department would be forced to reallocate resources from other priority work, such as transportation and waste package design activities, to endeavor to adhere as closely as possible to the schedules contained in the June 1985 Mission Plan for identification of potentially acceptable sites for a second repository and first repository site characterization activities. Such actions would adversely impact the start of operations of the overall waste management system.

QUESTIONS FROM SENATOR JOHNSTON

Nuclear Waste Fund

Question 32: What level of funding has DOE requested in FY-88 for monitored retrievable storage?

Answer: The activities described in the Department's FY 1988 budget request, including MRS activities, are consistent with a funding level of $725 million. At this level of funding, and assuming Congressional approval of the MRS, $58 million would be allocated to the MRS program.

If the waste program were to be funded at the $500 million level in the current budget, and assuming approval of the MRS, a potential MRS allocation would be $39.5 million.

QUESTIONS FROM SENATOR JOHNSTON

Nuclear Waste Fund

Question 33: Does this funding request assume that the MRS is approved by Congress in 1987?

Answer: Yes, the FY 1988 funding request assumes Congressional authorization for the MRS program in FY 1987.

QUESTIONS FROM SENATOR JOHNSTON

Nuclear Waste Fund

Question 34: What goals does DOE hope to accomplish in the MRS program in FY 1988?

Answer: The FY 1988 MRS program assumes the facility is authorized in FY 1987. The significant accomplishments planned for FY 1988 include an award of the design contract and initiation of definitive design activities, collection and verification of site data for design and environmental compliance documentation, initiation of the consultation and cooperation process as specified in the Nuclear Waste Policy Act, and start of financial assistance, and developing and implementing regulatory compliance plans.

QUESTIONS FROM SENATOR JOHNSTON

Nuclear Waste Fund

Question 35: How much will DOE actually spend on the waste program in FY-87, including both appropriated funds and carryover from previous years?

Answer: Based on the currently available funding level of $420 million provided in the FY 1987 Continuing Resolution, the Department plans to outlay approximately $442 million in FY 1987.

QUESTIONS FROM SENATOR JOHNSTON

Nuclear Waste Fund

Question 36: Does DOE anticipate having carryover funds available in FY 1988? For which programs?

Answer: While we have not designated carryover funds by program at this point, it is normally good practice to manage limited resources in a manner so that abrupt program stoppages can be avoided. Thus, we would hope to reserve some funding to meet the contingency that new funding may not be immediately available.

QUESTIONS FROM SENATOR JOHNSTON

Nuclear Waste Fund

Question 37: Will DOE actually be prevented from doing any work in FY 1987, which it would have otherwise been ready to do, because of the reduced appropriation in FY 1987 and the prohibition on exploratory shaft drilling?

Answer: In addition to delaying the start of exploratory shaft drilling, the reduced appropriation in FY 1987 necessitated the shifting of required work, such as the waste package Advanced Conceptual Design, previously planned for FY 1987, into subsequent years. Additionally, work schedules for other activities, such as work in preparation for the start of exploratory shaft drilling and the work on the repository Advanced Conceptual Design, were stretched out in order to stay within the funds available in FY 1987.

QUESTIONS FROM SENATOR JOHNSTON

Nuclear Waste Fund

Question 38: Absent a similar prohibition on exploratory shaft drilling in FY 1988, will DOE be ready to carry out this work at the three sites?

Answer: The absence of a prohibition on exploratory shaft drilling in FY 1988 would enable the first repository program to pursue the revised program schedule as described in the draft Mission Plan Amendment and the FY 1988 Congressional Budget Justification, which is based on a budget requirement of $725 million. Under the revised schedule, exploratory shaft drilling will begin in FY 1988 at the basalt and tuff sites.

QUESTIONS FROM SENATOR JOHNSTON

Nuclear Waste Fund

Question 39: Why hasn't DOE included money in its FY-88 budget request to allow payments to the nuclear waste fund by the Office of Defense Programs for defense high-level waste?

(a) Will DOE submit a budget amendment for this purpose once a cost allocation mechanism for defense waste is finalized?

Answer: A budget request for payments by the Office of Defense Programs to the Office of Civilian Radioactive Waste Management (OCRWM) would be more meaningful after a determination has been made on how to arrive at the total amount due.

In preparation for this, on December 2, 1986, the Department published a notice in the *Federal Register* that discussed alternative methods for calculating a fee for the disposal of defense high-level waste. The Notice invited public comments through February 2, 1987. These comments will be used in discussions during the next few months that are expected to result in an agreement between OCRWM and DOE's Office of Defense Programs on a provisional basis for a total fee. It is expected that this basis will be reexamined annually as estimates of the costs of handling defense high-level waste improve.

Answer 39 (cont'd)

(a) Once an initial estimate of total defense waste fees has been determined, alternative payment schedules will be examined. When a payment schedule has been determined, DOE will decide whether it is more appropriate to handle the initial request for payments through an amendment to the current budget or to schedule the initial request for payments as a part of the next annual budget cycle.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Mill Tailings Remedial Action Program

Question 40: In its FY-88 budget request, DOE states that it is proposing legislation to extend the completion date for uranium mill tailings cleanup from March 1990 to September 1993. When will DOE submit this legislation to Congress? What are the reasons for this extension request?

Answer: On September 8, 1986, the Department proposed to extend the Department's authority to conduct the program from March 1990 until September 1993. The 99th Congress failed to act on this legislative proposal. DOE plans to resubmit this legislation in May 1987.

Extending the UMTRA authorization period through FY 1993 reflects current budget constraints that make it impractical to seek or obtain the large annual appropriations required to complete remaining work by March 1990. Furthermore, technical and administrative constraints make it impossible to complete the cleanup, completion certification, title transfer, and licensing activities in the existing timeframe. These activities must be completed before the Department's authority to conduct the cleanup expires, and they have proven to be more time-consuming than anticipated when the legislation was originally enacted. Extending the UMTRA authorization period will cause an increase in the total estimated cost, but will also produce a more efficiently balanced annual workload. Failure to extend the project will

Answer 40 (continued): mean that all of the planned work would not be completed. The Department's recommendation to extend the duration of the UMTRA project is consistent with a similar recommendation made by the House Appropriations Committee in H. Rep. No. 95-195, accompanying the FY 1986 Energy and Water Development Appropriations Act.

QUESTIONS FROM SENATOR JOHNSTON

SSC FUNDING

FUNDING

Question 41: Mr. Secretary, on January 30 President Reagan agreed to support construction of the Superconducting Super Collider beginning in fiscal year 1988.

Funding
You have $35 million for FY 1988 and $350 million for FY 1989. Your total project cost is $5.3 billion. After construction the operating cost will be $270 million.

Where is the money going to come from for this project?

Answer: Because the President's decision to go forward with the Super Collider was made only recently, the $35 million requested for FY 1988 has been achieved through reallocation within the Department's earlier FY 1988 budget request of $566.6 million for High Energy Physics. Future funding of the Super Collider, particularly during the construction period, will require incremental funding above the present base activities. It is also our intention to seek maximum cost-sharing funding from other countries--as well as private industry, and state and local governments. There is much enthusiasm for the SSC worldwide and we are very optimistic about receiving substantial international and other participation. Together with the President's commitment to double the budget of the National Science Foundation, the SSC represents an unprecedented growth potential for United States science, so important for the future of the Nation.

QUESTIONS FROM SENATOR JOHNSTON

SSC SITING

Question 42: On February 10 you announced the site selection process and schedule for the project. As outlined, this "fair and open" competition will commence in April with an invitation for proposals sent to Governors. Deadline for submission of proposals would be in August. (a) Isn't this a pretty ambitious time table, particularly given the fact that the Congress has yet to determine if the project should be funded?

Answer: We believe there is sufficient time allotted for states to provide a credible response. By the time the proposals are received and are ready to be evaluated by the National Academy of Sciences and the National Academy of Engineering, the Congress should have decided whether to fund the SSC. In the invitation for proposals, which is to be sent out in April, we plan to clearly point out to potential proposers that proceeding with the site selection will, of course, be dependent upon Congressional approval of the project. If the Congress decides not to approve the SSC, we could quickly terminate the site selection process without causing any large amount of trouble.

QUESTIONS FROM SENATOR JOHNSTON

SSC SITING

Question 43: Is there sufficient response time for States to compile the data required for a winning proposal?

Answer: Yes, we think there is sufficient time. All of the states have known we were getting ready to do the SSC site selection since June 14, 1985. At that time, Dr. A. W. Trivelpiece sent a letter to all Governors informing them of the availability of a Draft Siting Parameters Document which described factors that were important in selecting a site and asking for any input they might wish to make. It is important to bear in mind that in the Invitation for Site Proposals, the proposers will be asked to supply information which should be, for the most part, readily available. We will not be asking for information such as a detailed design of the facility on the site(s) which would require costly studies. More detailed information, such as seasonal environmental information and on-site geological information, will be requested later in the process for those sites which are selected to be on the "best qualified list."

QUESTIONS FROM SENATOR JOHNSTON

SSC SITING

Question 43(a): Why are you going so fast?

Answer: This is not especially fast. As I have already indicated, SSC site selection is not a new topic just becoming public. The Department made the first public announcement on this subject over two years ago. All available information about SSC site selection, including an early technical advisory or site parameters, has been freely available to all interested parties.

QUESTIONS FROM SENATOR JOHNSTON

SSC SITING

Question 43(b): Are you just trying to get the site named before the 1988 elections?

Answer: It is important to the project that the site be selected at the earliest possible time. If the SSC project were initiated in FY 1988, it could be ready for experiment in the mid 1990's when the present U.S. accelerator facilities would no longer be capable of investigating key problems at the scientific frontier. Moreover, since continued progress in this key area of science is critically dependent on the SSC, delays in initiating construction could eventually result in the loss of U.S. leadership in High Energy Physics.

QUESTIONS FROM SENATOR JOHNSTON

SSC SITING

Question 44:	If you are indeed committed to a "fair and open" process, shouldn't the schedule be stretched out?
Answer:	As stated in the previous responses, we do believe that the process, with its present schedule, is fair and open.

QUESTIONS FROM SENATOR JOHNSTON

SSC SITING

Question 45:	What would be the practical effect of pushing the deadline back to say December 31, 1987?
Answer:	The answer to this question is fundamentally the same as the thoughts expressed in the response to the preceeding question. Because of the long lead time required to construct large accelerators such as SSC, it is necessary to begin in FY 1988 to avoid a major hiatus in experimental capability in the mid 1990's. The benefit of basic scientific research to the Nation is tangible, first in terms of its intellectual challenge and second, as the source of technological advances that will benefit future generations. We should do all that we can to assure the timely and orderly pursuit of the field of high energy physics which is so importanc to the Nation.

QUESTIONS FROM SENATOR JOHNSTON

CLEAN COAL TECHNOLOGY PROGRAM

Question 46: What is your view of the relationship between the Clean Coal Technology (CCT) Program and the demand for action to reduce acid rain in the Northeast and Canada?

Answer: The primary recommendation presented in the Joint Report of the Special Envoys on Acid Rain related to innovative control technologies was the need to increase the menu of control options so that it would be easier to formulate an acid rain control plan that would have broader public appeal. The CCT Programs, both the current program and that proposed in the FY 1988 Congressional budget request, do what the Special Envoys' had in mind: carry out technology demonstrations that will expand the menu of control options.

QUESTIONS FROM SENATOR JOHNSTON

CLEAN COAL TECHNOLOGY PROGRAM

Question 47: What is the status of negotiations in the first solicitation? When do you expect that all nine will be completed? At what point will you cease negotiations with the current selections and begin to look toward the alternate projects?

Answer: The first two Cooperative Agreements have been negotiated and signed by the respective industrial participants. The Comprehensive Reports to Congress for these projects have been delivered to the appropriate Congressional offices and the Department is prepared to execute these agreements as soon as they receive Congressional approval or the required 30-day "lie-before" period has expired. The Pre-negotiation Plan for a third project has been submitted and it is anticipated that the Cooperative Agreement for this project will be signed by the middle of March. The process of fact finding leading to the preparation of the pre-negotiation plans for the remaining six projects is in progress and in some cases nearly completed. Currently it is anticipated that the Cooperative Agreements for all nine projects will be signed by the respective industrial participants this summer.

If the negotiations with a potential participant cannot be completed for whatever reasons, we would then initiate the selection of a replacement project from the list of alternatives. The information required to make a decision to end negotiations with the sponsors of any of the projects is being gathered through a continuous monitoring of the fact finding and negotiation activities.

QUESTIONS FROM SENATOR JOHNSTON

CLEAN COAL TECHNOLOGY PROGRAM

Question 48: The second solicitation focuses on the technologies that are for repowering, retrofitting, or modernizing existing coal facilities. Do you envision that the third solicitation will focus on the same area? Why not combine the second and third solicitations into one program rather than having an additional solicitation?

Answer: Both the second and third solicitation focus on the retrofitting, repowering, and modernizing of existing facilities. Criticism of DOE's first solicitation and the resulting selections was that not enough retrofit projects were selected. The proposed second and third solicitation attempts to fill that perceived gap by focusing on retrofitting, repowering, and modernizing existing facilities.

The concept of having two sequential solicitations accomodates the observation that there are several promising technologies still in the development phase today that are not sufficiently mature to compete in the second solicitation. With two additional years of development, they would be ready for consideration as projects in the third solicitation.

QUESTIONS FROM SENATOR JOHNSTON

CLEAN COAL TECHNOLOGY PROGRAM

Question 49: What is the policy on recoupment/repayment in these solicitations? Are you convinced that the policy gives the maximum incentive for participation in the Clean Coal Program?

Answer: Currently plans are being prepared for the second and third solicitation for the Clean Coal Technology Program. A principal part of this planning effort is to identify and act on a number of key policy issues affecting the final terms and conditions of the program, including the merits of the recoupment/repayment concept. At this time, it is anticipated that a recoupment provision much like that of the current program will be included.

For CCT-1, our recoupment policy was to require repayment from successful projects that produced a profit. It is the policy of DOE to recover an amount up to the Government's contribution to the project. Successful offerors will be required to submit a plan outlining a proposed schedule.

While it would be impossible to determine whether or how the requirement for repayment has impacted the solicitation process, it must be observed that the first solicitation resulted in 51 proposals for projects. In addition, the request for expressions of interest in a second Clean Coal Solicitation has resulted in the submission of approximately 140 responses. These numbers signify high levels of interest on the part of potential participants who are fully aware of the previous repayment provisions of the Government's investment.

QUESTIONS FROM SENATOR JOHNSTON

CLEAN COAL TECHNOLOGY PROGRAM

Question 50: How do these technologies compare to the technological solutions to the acid rain problem that are available today? How does the program mesh with the recommendations of the Joint Envoys in their "Special Report" on acid rain?

Answer: For those utility systems that face the dual problem of the aging of their baseload power plants and the need for producing additional electricity, the repowering technologies, e.g., integrated gasification combined cycle, pressurized and atmospheric fluidized bed combustion, are expected to offer extremely attractive options. With these technologies, utilities can use much of the equipment currently being utilized by the aging plant, increase the power output of the old plant by as much as 150 percent, considerably extend the life of the old plant, and, in addition, greatly reduce SO_2 and NO_x emissions. Also, they should be economical, that is, much less costly than building new conventional (pulverized coal-fired) power plants to meet electricity demand. These technologies are capable of being utilized on most existing coal-fired power plants and are relatively non-sensitive to the coals.

Those existing coal-fired utility power plants that are not repowered and that, for any reason, require further control of their emissions, are currently limited to three conventional technologies, each of which has severe economic and/or socioeconomic impacts: flue gas scrubbing, which is too costly; switching to low-sulfur coals, which could create severe socioeconomic impacts; and, conventional coal cleaning, which is not very effective in removing SO_2.

The innovative clean coal slate of technologies suited for retrofitting existing power plants should provide substantially improved options for achieving emissions reductions when used either individually (e.g., advanced flue gas cleanup, advanced coal preparation, pressurized and atmospheric fluidized bed combustion, integrated gasification, combined cycle, etc.) or in combination with one another (e.g., coal cleaning in combination with in-duct injection of SO_2 control).

The advantages or attributes of innovative clean coal technologies compared to the conventional technologies with which they will compete include:

1. Expanding of the slate of attractive pollution control options, not only for SO_2 control, but for NO_x control as well;

2. Providing cost-effective options for the diverse inventory of coal-fired power plants, including those that are space-limited, or utilize low, moderate, and high sulfur coal, as well as units that are small, large, or moderately sized;

3. Producing waste products that are more easily and safely disposed or even saleable; and

4. Allowing for continued use of a wide range of coals now being mined and utilized at existing plants.

As a result, it is expected that, as the application of SO_2 and/or NO_x control technologies occurs, the innovative technologies will favorably compete with the conventional technologies. The timing and magnitude of emissions reductions, however, depend on such external factors as the need to meet state implementing plans or other regulatory requirements.

The Special Envoys recommended a program which would expand the suite of technologies available to control acid rain precursor pollutants from existing facilities. The technologies to be demonstrated under the present and proposed Clean Coal Technology Programs will do just that.

QUESTIONS FROM SENATOR JOHNSTON

FOSSIL ENERGY R&D

Question 51: Your proposal for Fossil Energy R&D is a cut of $132 million (44%). Shouldn't it be obvious to you that this proposal is totally off the mark and unacceptable?

Answer: The Department believes that the FY 1988 request for the Fossil Energy R&D program represents the proper balance between maintaining a strong research and development program while recognizing the serious national budget deficit problem. When all Federally-sponsored programs are considered, i.e., the Fossil Energy Technology Base R&D program, the Clean Coal Technology program, and the Cooperative R&D Ventures Pool program, a viable, effective total Fossil Energy R&D program has been developed for FY 1988.

QUESTIONS FROM SENATOR JOHNSTON

CONSERVATION R&D

Question 52: The Administration continually states the importance of conservation programs for the energy security of our Nation, then do you propose a 50 percent cut in the conservation R&D area. Why?

Answer In general, overall federal budget constraints have governed our request level. We have asked for what is necessary to maintain program goals, although it will admittedly take longer than at higher funding levels. Although the conservation R&D request for FY 1988 is only about one-half of the FY 1987 appropriation, it is 12% higher than the FY 1987 request.

We have assigned priority to research which offers the greatest potential for energy savings or alternative transportation fuel use, but which cannot be done by industry alone.

We plan our program with industry and have extensive cost-sharing to assure that our priorities are correct and that there will be effective technology transfer.

Some of the decrease in our request can also be explained by the fact that there are a number of projects that will be coming to a planned conclusion in FY 1987, such as the Automotive Stirling Engine and the nickel cadmium battery technology projects.

There are other projects that were not part of our planned FY 1987 program and are therefore not requested in FY 1988, such as the Tufts University Facility and the Automotive Gas Turbine (2nd Contractor).

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 53(a): We have heard that DOE is unwilling to sell the technology from the cancelled Gas Centrifuge Enrichment Plant (GCEP) in Portsmouth, Ohio, because DOE believes that the centrifuge process is uneconomic for DOE and therefore it will be uneconomic for anyone else. Would you please comment? It is understood that the Department is currently considering a proposal from the American Enrichment Corporation (AEC) to use the centrifuge from the cancelled GCEP. Is this true?

Answer: The Department is willing to sell or make available the gas centrifuge technology to qualified U.S. companies provided that (1) the technology transfer is in accordance with applicable laws and regulations and (2) such a transfer is in the national interest. Several parties have or are currently exploring the use of centrifuge technology or other GCEP assets with DOE.

The decision to cancel the GCEP project in June 1985 was made, in part, because the projected economics of the advanced gas centrifuge technology did not justify continuation of the project when compared to projected costs of operating the existing gaseous diffusion plants and the long-range potential of much lower costs from the AVLIS process.

Answer 53(a)
(continued): The AEC proposal, which addresses only a very small fraction of what the Federal Government had planned for GCEP production, is currently under consideration within the Department.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 53(b):	What is the status of this proposal?
Answer:	The AEC proposal is under consideration. DOE anticipates being in a position to provide the AEC with its final conclusion shortly.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 53(c):	Would you please enumerate on the strengths and weaknesses of the AEC proposal?
Answer:	We believe that it is inappropriate to comment on the merits of a proposal which is currently under consideration by the Department.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 53(d): I also understand that the Department is not very pleased with the costs of keeping these centrifuges in a standby condition. What are these costs on an annual basis for FY 1986 and beyond?

Answer: Delaying the orderly termination of the GCEP project costs the enterprise $700,000 a month (or $8.4 million a year) in direct labor charges alone. In addition, lost revenues due to reserving equipment for possible AEC use that otherwise could be sold or used by other Government agencies or private companies could amount to something between $12 and $55 million.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 53(e): Have any actions been taken to reduce the storage costs by destroying the centrifuges? Is that wise?

Answer: Prior to the Department's receipt of the AEC proposal, classified centrifuge machine parts were destroyed at manufacturers' facilities to avoid costs associated with expensive transportation, handling, and storage. However, no actions have been taken to reduce storage costs by destroying assembled centrifuge machines or machine assemblies located at the Gas Centrifuge Enrichment Plant (GCEP) in Portsmouth, Ohio. Since receipt of the AEC proposal, the Department has taken steps to preserve manufacturing equipment that otherwise would have been destroyed and has incurred costs to ship and store the equipment at the Portsmouth plant. All termination activities remain on hold at the GCEP plant pending a decision on the AEC proposal.

QUESTIONS FROM SENATOR JOHNSTON

Uranium Enrichment

Question 54: What is the Department's view of the advisability of licensing foreign technology (URENCO's) in the U.S. to compete with DOE?

Answer: Another supplier of enrichment services in the U.S. would decrease DOE's sales and thus increase the production cost per SWU. However, NRC licensing must be based solely on safety and environmental acceptability.

QUESTIONS FROM SENATOR JOHNSTON

QUESTION 55: Mr. Secretary, there has been a great deal of confusion over the Department's view of the role of the draft amendments to the Mission Plan. Please clarify, in unequivocal terms, in the Department's view, what legislative action is required by Congress in order for the amendments to take effect.

QUESTION 56: Does the Department believe that the ball is in Congress' court to take some action to dictate the future direction of the program? Didn't Congress already speak on this issue when it passed the Nuclear Waste Policy Act of 1982? Does the Department feel additional action is required by Congress in order for the letter of the law to be followed? Why?

Answer: The Administration considers action by the Congress is necessary to implement programmatic proposals described in the Mission Plan Amendment. These proposals are based on the Department's experience since 1983 in implementing the Act which strongly suggests that changes are necessary. The Department has no authority to change the requirements of the law. The Mission Plan Amendment is the vehicle to make recommendations for needed corrections. We hope Congress will respond to the Mission Plan Amendment by furnishing appropriate legislative direction.

QUESTIONS FROM SENATOR JOHNSTON

Question 57: Does the Department believe that the requirements of the Nuclear Waste Policy Act can be superseded by an appropriations act?

Answer: Any act of Congress can have the effect of amending any prior law. Congress can choose among legislative vehicles to accomplish its will.

QUESTIONS FROM SENATOR JOHNSTON

Question 58: How will the Department interpret approval of the full $725 million to be requested in a budget amendment? Will the Department take this to mean that Congress has approved the redirection proposed in the amendments to the Mission Plan?

Answer: No. The statutory requirements of the NWPA, to the extent inconsistent with the draft (Final) Mission Plan Amendment, control until substantive legislation is enacted to amend those requirements.

QUESTIONS FROM SENATOR JOHNSTON

Question 59: How will the Department interpret approval of only the $500 million requested in the January budget submittal to Congress?

Answer: While the original Congressional budget request only requested $500 million, the activities described therein are at the level of $725 million. Therefore, if the Congress approved the budget at a lower level, such as $500 million, the accompanying appropriation language will provide clarification.

QUESTIONS FROM SENATOR JOHNSTON

Question 60: How would the Department interpret an appropriation of some amount between $500 million and $725 million?

Answer: As in 58 and 59 above, the Department would expect Congress to provide clarifying language in any budget appropriation other than the Department's specific request.

QUESTIONS FROM SENATOR JOHNSTON

Question 61: If no action is taken by Congress to approve or disapprove the amendments to the Mission Plan, what course will the Department follow?

Answer: If Congress does not affirm the position taken by the Department in the Mission Plan Amendment, then the Department will diligently work toward meeting the specific requirements of the Nuclear Waste Policy Act.

QUESTIONS FROM SENATOR JOHNSTON

Question 62: At what point will DOE decide that Congress has not approved and is not likely to approve the amendments?

Answer: DOE expects to formally submit the Mission Plan Amendment to Congress sometime this summer, after receiving comments from affected parties and making changes in the Draft Amendment as appropriate. We hope Congress responds favorably and quickly to this proposal; however, we would not consider it appropriate to attempt to pre-establish a timeframe for Congressional response.

QUESTIONS FROM SENATOR JOHNSTON

Question 63: What will the Department do in the meantime? Haven't the amendments actually been in effect since May 28, 1986?

Answer: The Department will continue the program it announced on May 28, 1986, while it awaits Congressional direction.

QUESTIONS FROM SENATOR JOHNSTON

Question 64:	If the Department restarts the site selection process for a second repository, will you pick up where you left off on May 28, 1986?
Answer:	Unless Congress approves the programmatic changes to be set forth in the Mission Plan Amendment, the Department will restart the site-specific work for the second repository where we left off on May 28, 1986. If the DOE proposal to reconsider site-specific work in the mid-1990s is accepted, we would begin the site-selection process anew, based on the outcome of the second repository generic technology program.

QUESTIONS FROM SENATOR JOHNSTON

Question 65: Does this mean that you will go back to the same 12 sites?

Answer: Yes, if the Department is to attempt to address the 1989 date, we must return to the sites identified in the Draft Area Recommendation Report for the Crystalline Repository Project as modified by the over 60,000 comments received.

QUESTIONS FROM SENATOR JOHNSTON

Question 66:	Mr. Secretary, if you believe that you have acted within your statutory authority under the Act in making the Mission Plan amendments effective, why do you feel that legislative direction from Congress is needed?
Answer:	The schedules set forth in the draft amendment to the Mission Plan were based upon programmatic and management judgments. They describe the Department's considered and informed judgments, based on its actual experience in administering these programs, of the course and timing that the first and second repository programs should take given current circumstances. The Department recognizes that the proposals in the draft Mission Plan Amendment will require Congressional approval.

Question from Senator Johnston

QUESTION 67: What is the status of the Administration's effort to dispose of the Alaska Power Marketing Administration?

ANSWER: Several important steps have been completed on this divestiture effort, including public review of preliminary work plans, studies of alternative approaches, and an independent evaluation of assets. Our present plans anticipate inviting purchase proposals around April 1, 1987 with proposals to be submitted by August 1. We expect to complete by early 1988 all the necessary steps to develop specific divestiture proposals for Congressional consideration.

The budget assumes authorization will be obtained and the sale completed by the end of FY 1989.

The divestiture work is proceeding in an open and deliberate fashion and in close consultation with all interested parties.

QUESTIONS FROM SENATOR JOHNSTON

POWER MARKETING ADMINISTRATIONS

Question 68: The budget message expresses the Administration's intent to submit draft legislation to authorize a study with the objective of disposing of the Southeastern Power Administration.

- When may we anticipate the submittal of the draft legislation?
- Can you give the Committee any indication of the content of the legislation at this time?

Answer: A general provision for inclusion in an appropriation bill was submitted to the Congress with the President's budget. It appears at page II-21 of the Budget Appendix. We also have prepared a separate authorization, which is undergoing final review within the Administration. I expect that review to be completed very shortly and that the proposal will be submitted to the Congress within the next two weeks.

The proposal merely would authorize expenditure of funds and preparation or evaluation of Southeastern Power Administration divestitures studies. It is intended to overcome the current prohibition against those activities in section 208 of the "Urgent Supplemental Appropriations Act, 1986" (Public Law 99-349).

QUESTION FROM SENATOR JOHNSTON

POWER MARKETING ADMINISTRATION

QUESTION 69: As I recall, the Fiscal Year 1987 Budget proposal assumed that the Bonneville and Southwestern Power Marketing Administrations would be disposed of first. Now, you have apparently abandoned that idea and intend to study the disposal of Southeastern Power Administration. Why did you change your mind?

Answer: Several factors influenced our initial proposal made last year for Fiscal Year 1987. We were aware Congressman Weaver had proposed legislation that would transfer control of Bonneville Power Administration to regional groups. There also were other people in the Pacific Northwest exploring the idea of a regional effort to buy or takeover Bonneville and a report was issued in May 1985 entitled "Bringing Bonneville Home". Including Bonneville in the President's FY 1987 proposal therefore, was largely in response to this regional expression of interest.

The Presidnet's FY 1987 budget also included Southwestern Power Administration because it appeared at that time to be one of the least complex operations. With the exception of one generating project, the hydropower projects and the transmission facilities operate as one integrated system. All generating projects are operated and maintained by the Corps of Engineers.

Prior to the July 2, 1986 enactment by Congress of Public Law 99-349 the Supplemental Appropriations Act which prohibited further studies (except for Alaska Power Administration) of defederalization without specific legislative authorization, the Department had the opportunity to better assess the complexities involved. We are also gaining some experience as we work toward possible divestiture of the facilities of the Alaska Power Administration.

Southeastern Power Administration now appears to be the least complex Power Marketing Administration for divestiture following the Alaska Power Administration. Southeastern does not own and operate transmission lines or substations. There are several discrete systems which may allow divestiture to different parties.

Our current thinking is to begin with the least complex power systems and gradually work toward the divestiture of those with more complexities.

QUESTIONS FROM SENATOR JOHNSON

POWER MARKETING ADMINISTRATIONS

Question 70: The budget message also indicates that the Administration intends to seek legislation authorizing rate reform for the Power Marketing Administrations.

- When may we anticipate the submittal of the draft legislation to the Congress?
- Can you give any indication of the content of the legislation at this time?

Answer: The proposal is undergoing final review within the Administration. I expect this review to be completed shortly and that the proposal will be submitted to the Congress shortly.

This legislation would establish a fixed, straight-line amortization schedule for repayment of the Federal investment in Power Marketing Administration projects. It would apply to each power and irrigation project financed by appropriations, assigned to power for repayment, and placed in service. The proposal would not affect repayment of Federally-financed bonds issued by the Bonneville Power Administration.

QUESTION FROM SENATOR JOHNSTON

STRATEGIC PETROLEUM RESERVE FILL RATE IN FY 1988

Question 71: Administration officials have repeatedly expressed concern over the U. S. becoming excessively dependent on foreign oil in the 1990's. Furthermore, the Administration favors filling the SPR to 750 million barrels, yet you are proposing a fill rate (35,000 b/d) that won't fill the Reserve until the next century (2003). How can you justify that?

Answer: At the end of fiscal year 1987, the Strategic Petroleum Reserve (SPR) will contain 534 million barrels of crude oil. The Administration has supported a 750 million-barrel Reserve, as evidenced by the 400 million barrels added to storage in the last six years; the SPR is continuing to grow even while the Administration and the Congress are reducing the Federal deficit. Nevertheless, we believe that annual fill rates must be measured against our total means and other priorities. A 75,000 barrels per day fill rate in FY 1988 would only increase the SPR inventory by 3 percent in comparison to the President's budget, but would require budget reductions for other priority programs of about $250 million. Furthermore, in the context of current world oil market conditions and our current reserve levels, we believe that fill rates can be more modest than in earlier years without compromising energy security.

QUESTION FROM SENATOR JOHNSTON

STRATEGIC PETROLEUM RESERVE FILL RATE IN FY 1987

Question 72:	The ink is barely dry on the law passed last year which requires the SPR fill rate to be the highest practical fill rate achievable with available funds. What rate would that be for FY 1987? What rate are you planning to achieve? That law also requires a fill rate of at least 75,000 barrels per day or Elk Hills production will be shut in or transferred to the SPR. Your method of compliance is to repeal that provision less than a year after it was enacted. Is that right?
Answer:	Under the oil price assumptions in the President's budget request, we would plan to use existing funds to acquire 8.9 million barrels for delivery in FY 1988. If this entire quantity were to be delivered instead in FY 1987, it would increase our average daily fill rate from the planned 75,000 barrels per day to over 95,000 barrels per day. However, this would ignore the past practice of the Administration, effectively endorsed by the Congress, of assuring continuity in SPR fill by acquiring, in one fiscal year, oil to be delivered in the early part of the following year. Thus, it would preclude taking advantage of attractive long-term contract opportunities.

You are correct that we would like to have the current law amended. The existing linkage between the authority to sell oil from the Naval Petroleum Reserves and the fill rate of the Strategic Petroleum Reserve is not, by its terms, subject to the availability of appropriated funds. Accordingly, both the Congress and the Administration are constrained in setting national priorities in compliance with deficit reduction legislation. We see our proposal to amend the Energy Policy and Conservation Act in large measure as a necessary step toward conforming with deficit reduction legislation.

QUESTIONS FROM SENATOR JOHNSTON

"STAR WARS"

Question 73: What is the budget request for "Star Wars" programs including the space-based power systems programs? How much increase over last year?

Answer: The Department of Energy's FY 1988 funding request for the Strategic Defense Initiative is $569 million, an increase of $209 million over the FY 1987 appropriated level of $360 million. The breakdown by organizational element is shown below:

(in millions of dollars)

	1986 Actual	1987 Appropriation	1988 Request
Defense Programs	$267 a/	$317	$481
Nuclear Energy	18 b/	43 b/	88 b/
Total	$285	$360	$569

a/ Includes an appropriation transfer of $62 million.
b/ Resources allocated to space-based power systems.

QUESTIONS FROM SENATOR JOHNSTON

STAR WARS

Question 74: What Star Wars technologies will be ready for any hypothetical "early deployment" in the early 1990's? Will any directed energy weapons be ready then?

Answer: The Department of Energy's nuclear directed energy weapons (NDEW) research is not oriented toward support of any SDI "early deployment." Rather, the primary reason for conducting NDEW research is to understand the impact that such weapons, if developed by the Soviets, could have on a future U.S. strategic defense system or on our nuclear retaliatory deterrent. Based on the state of our research, it is too early to predict which NDEW concepts may prove to be technically feasible, either for us or for the Soviets.

With respect to space-based power systems, both the SP-100 space reactor and the Dynamic Isotope Power System development programs have been targeted to be available as energy supply sources for civilian and defense space platforms in the early to mid-1990's. Depending on the hypothetical "early deployment" scenarios that might be pursued or the timing of these deployments, either or both of these technologies could be needed to support "early deployment" options.

QUESTIONS FROM SENATOR JOHNSTON

"STAR WARS"

Question 75: Please provide for the record the 5-year projections for SDI programs within DOE.

Answer: The Department of Energy's 5-year projections for SDI programs are shown below:

	Fiscal Year (millions)			
	1988	1989	1990	1991
Defense Programs*	481	390	500-600	500-600
Nuclear Energy	88	152	183	166

	1992
Defense Programs*	500-600
Nuclear Energy	185

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*FY 1989 to 1992 will be reviewed following final congressional action on the FY 1988 request.

These projected needs would support Nuclear Directed Energy Weapon research and the SP-100 reactor, Dynamic Isotope Power System, and Multimegawatt Space Reactor efforts.

QUESTIONS SUBMITTED BY SENATOR JOHNSTON

ASSET SALES AND DEFICIT REDUCTION

Question 76: The budget documents show the FY 1988 budget will meet the Gramm-Rudman-Hollings deficit targets by only $200 million to spare. Is it true then that the Administration cannot meet its deficit targets without the sale of assets such as the Naval Petroleum Reserves? The proposed spending cuts alone are not enough to meet Gramm-Rudman.

If Congress does not approve the proposed sale of assets, by how much will the Federal government miss the Gramm-Rudman target under your calculation?

Answer: The President's FY 1988 budget assumes $4.1 billion in undistributed offsetting receipts resulting from the proposed sale of Federal assets, comprised of $1.0 billion from the sale of Amtrack; $0.6 billion from the sale of Federal Communications Commission licenses; and $2.5 billion (with another $0.8 billion assumed in FY 1989) from the sale of the Federal interest in Naval Petroleum Reserves 1 and 3. If Congress does not approve these asset sales, the FY 1988 deficit assumed in the President's budget would increase by the amount of these proposed receipts, i.e., from $107.8 billion to $111.9 billion, which would exceed the Gramm-Rudman-Hollings deficit target by $3.9 billion.

It should be noted that the Administration's proposal to sell certain Federal assets is not an expedient for deficit reduction, but is based upon a long-standing policy to remove the Federal government from commercial activities, a policy which antedates deficit reduction legislation. In the case of the Naval Petroleum

Reserves, for example, it is our belief that there is no justification for Federal ownership and operation of a commercial oil field which could be run more effectively and efficiently by the private sector.

QUESTIONS FROM SENATOR JOHNSTON

STATE AND LOCAL PROGRAMS

Question 77: Despite the increased administrative responsibility of monitoring States' use of oil overcharge funds, the FY 88 budget request for administration of State and Local programs is less than half of the level estimated for FY 87 ($6 million in FY 88 as opposed to $13.5 million in FY 87). How does the Department expect to meet its increased administrative responsibilities with reduced funding?

Answer: The Department will be able to meet its administrative responsibilities despite reduced funding because the States now are able to assume more of the monitoring functions attendant on their programs. With the guidance and training provided by the Department since the inception of the assistance programs, the States have developed the infrastructure and procedures necessary to administer and monitor their programs.

OSLAP program direction funds are requested to provide monitoring and oversight activities as required and for the analysis, evaluation, and technical assistance activities of SLAP programs.

During FY 87 we will be placing special emphasis on efforts to assure that States implement effective monitoring procedures. In FY 88 DOE will focus its monitoring efforts at the State level with random spot-checks of subgrantees to discourage any waste, fraud, or abuse.

QUESTIONS FROM SENATOR JOHNSTON

STATE AND LOCAL ASSISTANCE PROGRAMS

Question 78: Has the Department experienced any difficulties in monitoring State expenditure of Exxon or Stripper Well funds? For example, have States been attempting to spend funds on unauthorized activities?

Answer: It is premature to comment on the monitoring of Exxon and Stripper Well funds since many States have not yet begun their programs, and those that have implemented programs are still in early stages.

There have been few problems associated with the review of the States' applications for funding, including Exxon. Submitted plans for use of the money have conformed closely to the prescribed limitations which dedicate the money solely to four DOE programs and one HHS program. We have not found any instances of States' expending funds on unauthorized activities.

State plans for the use of Stripper Well funds, which may be applied to a wider range of energy activities, also require DOE review to ensure adherence to approved energy programs. To our knowledge no State has attempted to spend funds on unauthorized activities. The States agreed, as part of the Settlement Agreement, to provide their proposed projects to the Department at least 30 days prior to the expenditure of funds. The Department then advises the States as to whether the proposals are consistent with terms of the Settlement Agreement.

QUESTIONS FROM SENATOR JOHNSTON

STATE AND LOCAL PROGRAMS

Question 79: Please provide the Committee with a detailed report of all FY 1986 and FY 1987 uses of Exxon and Stripper Well funds (by State) and any information the Department has on the anticipated use of these funds.

Answer: Attached is a listing by region and State of the approved commitment of Exxon funds to the four DOE assistance programs and expenditures reported through the first quarter of FY 1987. The Department of Health and Human Services is responsible for the use of Exxon funds for low-income home energy assistance. All State Exxon plans approved by DOE will continue to adhere to projects falling within SECP, EES, WAP, and ICP guidelines.

The Department initiated the Stripper Well review process early in FY 1987, and, to our knowledge, no Stripper Well funds were expended in FY 1986. Further, under terms of the Settlement Agreement, the States have a dual responsibility: first, to advise DOE of proposed expenditures at least 30 days in advance of those expenditures; and second, to submit an Annual Report at the end of their fiscal year detailing the expenditure of Stripper Well funds during the year.

The attached "Stripper Well Status Report" of February 19, 1987, provides the most current information on planned expenditures.

2/17/87

DATA ON EXXON FUND AUTHORIZATIONS

The total Exxon funds authorized hy the field offices for States to expend for the four SLAP programs* to date are:

	Authorized To Spend ($000)	Percent of Total Exxon Distrihution of $2.1 Billion**
SECP	$122,022	6%
EES	$ 22,586	1%
WAP	$146,946	7%
ICP	$ 20,169	1%
Total	$311,723	15%

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* DOE does not have data on the amount of Exxon funds States are expending on the LIHEAP program administered hy HHS.

** Some States' requests for expenditure authorization have explicitly included interest amounts as well as or even in lieu of "principal." The amount of total accrued interest, however, is not a figure on which DOE has current data.

		FUNDS AUTHORIZED (dollars in thousands)				REPORTED EXPENDITURES THRU 12/31/87*** (dollars in thousands)			
REGION	STATES	SECP	EES	WAP	ICP	SECP	EES	WAP	ICP
ATL	FLA	-0-	-0-	-0-	5,050	-0-	-0-	-0-	106
	GA	1,505	1,777	6,870*	-0-	209	342	1,576	-0-
	KY	-0-	-0-	617**	-0-	-0-	-0-	-0-	-0-
	MISS	4,531	174	1,750	6,294	-0-	-0-	646	-0-
	N.C.	-0-	-0-	1,000**	-0-	-0-	-0-	58	-0-
	S.C.	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	TN	-0-	-0-	3,750	-0-	-0-	-0-	-0-	-0-
	AL	1,235	496	-0-	-0-	-0-	-0-	-0-	-0-
	P.R.	-0-	-0-	N/A	-0-	-0-	-0-	-0-	-0-
	V.I.	-0-	-0-	N/A	-0-	-0-	-0-	-0-	-0-
N.Y.	N.Y.	42,252	9,462	9,000	-0-	964	162	294	-0-
	N.J.	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-

* INCLUDES $1,175 INTEREST

** ALL INTEREST

*** STATES' EXPENDITURE REPORTS FOR QUARTER ENDING 12/31/86 ARE JUST NOW BEING RECEIVED BY FIELD OFFICES, SO EXXON EXPENDITURE DATA IS STILL SPARSE.

DEN	COL	17,300	-0-	3,000	-0-	-0-	-0-	-0-	-0-
	MONT	-0-	-0-	1,600	-0-	-0-	-0-	-0-	-0-
	IDAHO	3,500	-0-	3,000	-0-	-0-	-0-	-0-	-0-
	N.D.	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	UTAH	-0-	-0-	1,000	-0-	-0-	-0-	-0-	-0-
	WY	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
RICHL	OR	1,005	-0-	2,000	-0-	16	-0-	781	-0-
	WA	-0-	-0-	3,000	-0-	-0-	-0-	1,024	-0-
	ALASKA	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
SAN FRAN	CA	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	AZ	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	NV	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	HA	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	GUAM	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	A. SA	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	N. MAR	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	TTPI	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-

CHO	ILL	-0-	-0-	6,000	-0-	-0-	-0-	-0-	-0-
	IND	8,300	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	MICH	4,175	-0-	4,919	-0-	175	-0-	-0-	-0-
	MINN	12,220	433	3,500	-0-	-0-	-0-	-0-	-0-
	OHIO	1,150	150	6,501	348	-0-	-0-	2,760	-0-
	WISC	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
KS	IOWA	7,286	-0-	2,500	-0-	54	-0-	1,184	-0-
	KA	-0-	-0-	-0-	1,500	11	-0-	-0-	-0-
	MO	1,337	473	2,500	1,000	-0-	9	2,311	-0-
	NEB	225	75	-0-	-0-	13	-0-	-0-	-0-
BOS	CONN	-0-	3,000	8,500	1,000	481	-0-	-0-	-0-
	ME	6,700	250	7,800	-0-	-0-	-0-	-0-	-0-
	NH	115	69	-0-	-0-	-0-	-0-	-0-	0-
	VT	850	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	MASS	2,850	-0-	52,000	-0-	-0-	-0-	-0-	-0-
	R.I.	1,490	565	1,300	-0-	-0-	-0-	-0-	-0-

PHILA	DC	-0-	200	-0-	-0-	-0-	-0-	-0-	-0-
	MD	-0-	-0-	3,689	-0-	-0-	2,500	-0-	-0-
	PA	716	5,462	-0-	3,592	-0-	-0-	-0-	-0-
	VA	-0-	-0-	4,900	-0-	-0-	-0-	-0-	-0-
	W. VA	150	-0-	-0-	-0-	-0-	-0-	-0-	-0-
DALLAS	ARK	3,130	-0-	-0-	1,385	167	-0-	-0-	-0-
	LOUIS	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-8-
	N.MEX	-0-	-0-	1,250	-0-	-0-	1	-0-	-0-
	OKLA	-0-	-0-	5,000	-0-	-0-	-0-	374	-0-
	TEXAS	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
GRAND TOTALS		$122,022	22,586	146,946	20,169	2,090	514	13,508	106

STATUS OF STATES

STRIPPER WELL PROPOSALS

Received:	22
Official Responses:	15
Complete Concurrence or Concurrence w/comment:	11
Partial Concurrence:	1
Request for more information:	3
Withdrawn	2
Total non-concurrence:	0
In-Process:	5

Following is a State-by-State summary.

ALABAMA

- Funding Proposed: $11M
- Total concurrence on 12-5-86
- Projects:

a.	Energy Technicial Training	$ 500,000
b.	Local Government Energy Management	100,000
c.	Road and Bridge Repair	5,000,000
d.	Traffic Synchronization	500,000
e.	Cogeneration Promotion	500,000
f.	Low Income Home Energy Assistance	2,700,000
g.	Educational Fleet Management	100,000
h.	Local Government Technical Assistance	100,000
i.	Institutional Conservation Grant	1,000,000
j.	Commercial and Industrial Energy Audit	500,000

ARIZONA

Two proposal received.

Arizona #1

- Funding Proposed: $3,199,000
- Total concurrence on 12-9-86
- Projects:

a.	Solar Oasis (demonstration)	$2,750,000
b.	Community Based Low Income Program	75,000
c.	Administration	374,000

Arizona #2

- Funding Proposed: $4,288,000

Governor of Arizona submitted a letter dated January 12, 1987 withdrawing the proposed projects under this proposal. No action being taken.

ARKANSAS

- Funding Proposed: $2,302,855
- Total concurrence on 12-5-86
- Projects:

a.	Weatherization Assistance Program	$1,222,855
b.	Low Income Home Energy Assistance	480,000
c.	Arkansas Transit Association	500,000
d.	Consolidation of Public Transit Services	100,000

CONNECTICUT

Two proposals received.

Connecticut #1

- Funding Proposed: $11,850,000
- Concurrence with Comment on 12-30-86
- Projects:

a.	Radon Mitigation	$ 400,000
b.	Energy Conservation Loan Interest Buy-Down	500,000
c.	Energy Conservation Loan Program	500,000
d.	Mass Transit	2,900,000
e.	Special Transportation Project	1,000,000
f.	Technical Building Analysis	1,000,000
g.	Payment of Energy Bills	1,000,000
h.	Supplemental Security Deposit	400,000
i.	State Energy Conservation Program	650,000

j.	Institutional Conservation Program	1,000,000
k.	Conservation Measures in Non-Profit Facilities	1,500,000
l.	Cogeneration Feasibility Studies	200,000
m.	District Heating Feasibility Studies	400,000
n.	Energy Conservation in Non-Profit and Urban Enterprise Zones	400,000

Connecticut

- Funding Proposed: N/A
- Response due on: 3-12-87
- Project:

Connecticut is responding to a question contained in our basic concurrence letter of December 30, 1986.

Connecticut #2

- Funding Proposed: $1,150,000
- Concurrence on: 2/5/87
- Projects:

a.	Operation Fuel	$ 250,000
b.	Connecticut Energy Assistance Fund	500,000
c.	Innovative Re-cycling Technology	400,000

COLORADO

Two proposals submitted.

Colorado #1

- Funding Proposed: $7,800,000
- Concurrence with comment on 12-18-86
- Projects:

Note: Colorado proposed 28 projects valued from $1,350,000 to $1,100. Attachment 1 is a listing of these projects.

Colorado #2

- Funding Proposed: $1,682,350
- Concurrence on: 2-17-87
- Project:

a.	Senior Citizen Energy Assistance	$1,682,350

GEORGIA

- Funding Proposed: $15,053,000
- Response in concurrence - waiting on GC concurrence 2-19-87
- Projects:

Note: Georgia has proposed 23 projects which are listed as Attachment 2.

GUAM

- Funding Proposed: $65,000
- Response due on: 2-28-87
- Projects: Demonstration of a Photovoltaic lighting System

ILLINOIS

- Funding Proposed: $41,500,000
- Response due on: 3-9-87
- Projects:

Low Income Home Energy Assistance Program	$11,500,000
Illinois School Conservation Program	30,000,000

IOWA

- Funding Proposed: $36.8M
- Modified Proposal received: 2-17-87
- Response due on: 3-17-87
- Projects:

a.	Groundwater Information Initiative	$13,400,000
b.	Ten Year Agricultural Initiative	10,600,000
c.	Accelerated Problem Assessment Initiative	5,300,000
d.	Comprehensive Waste Management Initiative	600,000
e.	Storage Tank Program	1,500,000
f.	Low Income Home Weatherization	5,400,000

KENTUCKY

- Funding Proposed: All Stripper Well funds $10,000,000
- Concurrence on: 2-17-87
- Projects: State has created a Low Income Energy Trust Fund whereby all interest earned will be used to benefit low income households.

NEBRASKA

Two Proposals

Nebraska #1

- Funding Proposed: $5,000,000
- More Information Requested On: 12-18-86
- Supplemental Information contained in Governor's letter of January 7, 1987.
- Request Withdrawn by Governor's letter of January 13, 1987
- Project is a Revolving Loan Program for Energy Conservation Measures and Equipment $5,000,000

Nebraska #2

- Funding Proposed: $600,000
- Concurrence in ASCE: 2-19-87
- Project is Weatherization Assistance Program $ 600,000

NEW MEXICO

- Funding Proposed: $5,384,777
- Concurrence with Comment on 1-7-87
- Projects:

a.	Low Income Home Energy Assistance	$ 100,000
b.	Local Government Energy Conservation	1,426,704
c.	Energy Efficiency in State Building	2,937,010
d.	Institutional Conservation Program	200,012
e.	Allocation for Native American Tribes	451,813
f.	Administration	269,238

OKLAHOMA

- Funding Proposed: $1,308,000
- Total concurrence on 12-24-86.
- Projects:

a.	Assistance to Transit System	$ 700,000
b.	Installation of Heaters Using Reclaimed Oil	8,000
c.	Energy Research Office	400,000

Oklahoma #2

- Funding Proposed: $4,800,000
- Response due on: 3-4-87
- Projects:

a.	Low Income Home Energy Assistance Program	$400,000
b.	Assistance to Indian Tribes	400,000
c.	Oklahoma University Energy Center	2,000,000
d.	Oklahoma State University Research Center	2,000,000

SOUTH DAKOTA

Two Proposals

South Dakota #1

- Funding Proposed: $1,674,000
- Concurrence provided on projects a and d and nonconcurrence on projects b, c, and e on 1-9-87
- Projects:

a.	State Government Energy Maintenance	$ 176,993
b.	Reconstruction of Marion Train Loading Area	111,027
c.	Expansion of Minnehala Water Corporation Project	325,500
d.	Demonstration of Snow and Wind Control Shelter Belts	10,500
e.	South Dakota Petroleum Recovery Fund	1,674,020

South Dakota #2

- Funding Proposed: $2,000,000
- Response due on: 2-27-87
- Project: Road and Bridge repair in all counties of State

WISCONSIN

- Funding Proposed: $12,800,000
- Concurrence on: 2-11-87
- Projects:

a.	Low Income Residential Energy Conservation	$1,200,000
b.	Middle Income, Residential Energy Conservation	1,500,000
c.	Business, Energy Efficiency Incentives	3,000,000
d.	Sustainable Agriculture, Energy Efficiency Promotion	2,000,000
e.	Waste to Energy Conversion	1,400,000
f.	Public and Nonprofit Facilities, Weatherization	2,000,000
g.	Traffic Light Synchronization Improvements	1,500,000
h.	Native Americans, Furnace Retrofits & Replacements	200,000
i.	Institutional Conservation Program	Interest*

*All interest earned in excess of $7,301.98, which is the amount needed in order that the Stripper refund principal and interest total equal $12,800,000, will go to this program.

QUESTIONS FROM SENATOR JOHNSTON

FEDERAL ENERGY MANAGEMENT PROGRAM

Question 80a: Nearly one year ago, P.L. 99-272 amended the National Energy Conservation Policy Act and granted Federal Government agencies authority to enter so-called shared-savings contracts which allow the use of private capital for improving energy efficiency in Federal buildings. Would you provide the Committee with a progress report on the implementation of this new authority?

Answer: Federal agencies have responded enthusiastically to the new opportunities for shared savings. Federal agencies have concentrated on developing appropriate contract structures and requirements which will lead to healthy and long lasting working relationships between government agencies and private sector energy service companies (ESCOs).

Industry forums have been held by a number of Federal agencies to solicit comments from ESCOs regarding proposed contract structures. A few general conclusions have developed which could have an impact on program implementation progress:

- ESCOs lack knowledge of Federal procurement practices, requiring a careful process of familiarization.

- Shared savings contracts are a new type of Federal procurement and cannot be drawn up as regular construction contracts.

- Procurement methods must be simplified and streamlined to allow contractors to enter competition at a reasonable cost.

- Government must develop specific engineering, contracting, and administration capabilities to run the projects from inception to completion on a cost-effective basis.

Both Government agencies and ESCOs must reach a mutual agreement on reasonable requirements and risks involved in Federal shared savings procurements to assure continued program implementation in an expeditious manner.

A number of pilot shared savings projects are already in progress in the Department of Defense and lessons from their experiences are being made available to other agencies.

QUESTIONS FROM SENATOR JOHNSTON

FEDERAL ENERGY MANAGEMENT PROGRAM

Question 80b: How many projects are under development or have been initiated?

Answer: Twelve projects are in various stages of development as follows:

- Navy - 1 proposal due March 1987
  4 proposals to be advertised in FY 1987
- Air Force - 3 proposals to be advertised in FY 1987
- Army - 3 proposals to be advertised in FY 1987
- Veterans Admin. - 1 proposal due March 1987

QUESTIONS FROM SENATOR JOHNSTON

FEDERAL ENERGY MANAGEMENT PROGRAM

Question 80c: What are the anticipated energy savings as a result of this new authority in 1987 and 1988?

Answer: Because only two retrofit projects are likely to be under contract during 1987, it is not anticipated that energy saving can be documented in 1987, and only modest savings are expected in 1988.

QUESTIONS FROM SENATOR JOHNSTON

FEDERAL ENERGY MANAGEMENT PROGRAM

Question 80d: Has the Department established any specific effort to assist Federal agencies in implementing this new authority?

Answer: Donna R. Fitzpatrick, Assistant Secretary for Conservation and Renewable Energy, has led an outreach effort to Federal agencies on the benefits of shared energy savings through meetings with the Assistant Secretaries and Deputy Assistant Secretaries responsible for the management of agency facilities. To date, officials of United States Postal Service, National Aeronautics and Space Administration, General Services Administration, the Department of Health and Human Services, and the Department of Interior have been briefed on the benefits of shared savings contracting.

Through a jointly-funded program, DOE is providing engineering and contracting assistance to the U.S. Air Force at two bases where pilot shared savings contracting projects are being developed. DOE is testing the use of a simplified software analysis package - ASEAM-2 - on the HUD headquarters building as a possible tool for developing baseline data against which a contractor's performance could be measured.

Additionally, DOE is planning to hold training workshops for procurement, legal and facility management personnel of the various agencies when a contract is in place and actual experience has been gained.

QUESTIONS FROM SENATOR JOHNSTON

FEDERAL ENERGY MANAGEMENT PROGRAM

Question 80e: Has the Department discovered any significant barriers to implementation of this new authority, and, if so, what are they and what has the Department done to alleviate them?

Answer: While there are barriers such as those described under conclusions above, the Department is dealing with them, and none have yet developed into insurmountable problem areas.

QUESTIONS FROM SENATOR BUMPERS

REDUCTIONS TO NON-NUCLEAR TECHNOLOGIES

Question 81: In 1981, Congress appropriated over $4 billion for the Department of Energy's energy technologies R & D budget, i.e., conservation, nuclear fission, nuclear fusion, solar and renewables, and fossil energy. Fossil energy received 28% of this funding, nuclear fission 24%, solar and conservation 19% each, and fusion 10%. Since 1981, funding has decreased dramatically in all programs except for nuclear fission, which received 46% of a $2.4 billion budget last year. This year, DOE proposes a $1.9 billion budget for these five programs. Nuclear fission would receive 55% of the total, fossil 19% (including clean coal technology), fusion 17%, solar 5% and conservation only 4%.

Assuming for the moment that we should be spending less than half the 1981 level for energy R & D because of "budget constraints", how do you justify the downgrading in percentage terms of the non-nuclear energy technologies in the DOE budget?

Answer: In attributing a FY 1988 budget request of $1.9 billion to these five technology areas, you have included the Naval reactors development program with nuclear energy research and development. Although the Naval reactors program is administered by the Office of Nuclear Energy, which also oversees the nuclear energy research program, the funding for Naval reactors is part of our Atomic Energy Defense appropriation and budget function 050 (Defense), rather than part of budget function 270 (Energy), which includes nuclear research and development and the other programs you mention. Consequently, we believe that a more proper figure for comparing energy programs is $1.24 billion, which excludes Naval reactors, with nuclear energy research and development contributing $336 million, or 27 percent of the total. Using this total, the contributions of fossil (including clean coal technology), fusion, solar (including electric energy systems and energy storage), and conservation research and development are 30, 28, 9, and 6 percent, respectively.

Even using this different calculation, it is fair to say that the percentage contribution of non-nuclear technologies has declined since 1981. The principal reason for this is the Administration's policy of limiting Federal support to long-term, high-risk research and development programs and projects which the private sector cannot reasonably be expected to support. It is our belief that Federal dollars were being directed to a number of activities in the non-nuclear area where the justification for a Federal role was weak. We have moved to ensure that the FY 1988 budget provides support only where it is appropriate and necessary to meet our energy goals, consistent with established themes of this Administration.

QUESTION FROM SENATOR BUMPERS

INCREASING DOMESTIC OIL AND GAS PRODUCTION

Question 82: In DOE's National Energy Policy Plan, 1985, the projected energy usage figures by primary source for the year 2000, indicated that we would be using liquid fuels (oil and gas) for 55.1 percent of our energy needs. In 1984 liquid fuels represented 64.5 percent of our energy usage. Given the events in the world oil market over the past year, and the devastating effect these events have had on our domestic oil production industry, much of this oil will be imported.

What specific R & D programs can you point to in the DOE budget that have as a goal either increasing our domestic production of oil and gas or finding alternatives to traditional liquid fuels? For each program indicate the Department's request to OMB and your opinion as to (1) whether funding is adequate to meet program goals and (2) what levels of funding would be needed to significantly reduce the NEPP's projections for our dependence on oil and gas in the year 2000.

Answer: The Department's fossil energy program addresses the issues of increasing domestic production of oil and gas and developing alternatives to traditional liquid fuels through research programs to develop new and improved technologies for unconventional gas recovery, enhanced oil recovery, production of liquid fuels from oil shale, coal liquefaction, and coal use. Specifically with regard to the latter, there are a number of core fossil energy research and development programs aimed at improving our ability to burn coal cleanly. Also, the Clean Coal Technology program Phase 1 seeks to demonstrate technologies for both use in new construction and to retrofit, modernize, or repower existing coal burning facilities, so that coal can be burned economically in an environmentally sound manner. Phase 2 of the Clean Coal Program, for which initial funding is requested in the President's FY 87 budget request, will specifically focus upon retrofitting, repowering, and modernizing technologies. These programs, if successful, could lead to increased use of our vast coal reserves.

Under certain conditions, environmentally benign coal-burning powerplants could replace plants burning imported fuel oil in regional markets or could displace the use of such fuels in existing plants.

A number of other technologies supported by the Department are potential alternatives to traditional liquid fuels in a number of utility and industrial applications. Among these technologies are nuclear, solar, geothermal, other renewable energy sources such as biomass and wind, and fusion. Conservation should also be included, because improved energy efficiency serves to reduce the demand for all energy supply sources, including liquid fuels.

Also, the Department's proposed Cooperative Venture research and development program can be used across the broad spectrum of fossil energy, solar and renewables, and conservation technology areas, as determined by the interest expressed in various areas by the private sector.

The Department believes that the budgets requested for these specific technology areas are adequate to meet our program goals. Should these goals be met, it is reasonable to expect a reduction in the Nation's dependence on imported liquid fuels. The Department's requests to OMB for the referenced programs are shown in the Budget History Table, which is being provided for your information.

DEPARTMENT OF ENERGY

BUDGET CONTROL TABLE

REPORT DATE
1/16/87

FY 1988

History of the FY 1988 Congressional Budget Request

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RHUMHL

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DEPARTMENT OF ENERGY
FY 1988 CONTROL TABLE
(DOLLARS IN THOUSANDS)

BY APPROPRIATION

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
999100	SUMMARY BY APPROPRIATION:				
999115	ENERGY SUPPLY R&D....................................	1,254,131	2,237,028	2,013,134	1,914,710
999125	URANIUM SUPPLY AND ENRICHMENT ACTIVITIES............	1,210,400	——	207	1,070,000
999110	GENERAL SCIENCE AND RESEARCH ACTIVITIES............	719,517	886,398	842,634	814,498
999105	ATOMIC ENERGY DEFENSE ACTIVITIES....................	7,401,852	9,398,220	8,228,192	8,050,000
999225	DEPARTMENTAL ADMINISTRATION........................	139,509	226,649	209,584	166,133
999164	POWER MARKETING ADMINISTRATIONS:				
999165	ALASKA POWER ADMINISTRATION........................	2,881	3,191	3,300	3,026
999170	BONNEVILLE POWER ADMINISTRATION....................	327,659	325,200	300,800	285,800
999175	SOUTHEASTERN POWER O&M.............................	19,647	27,788	27,490	27,400
999180	SOUTHEASTERN CONT. FUND.............................	——	500	——	——
999185	SOUTHWESTERN POWER O&M.............................	25,337	38,041	30,733	16,648
999190	SOUTHWESTERN POWER CONT. FUND......................	——	——	——	——
999195	WESTERN AREA POWER O&M.............................	240,309	351,000	302,788	295,515
999200	WAPA EMERGENCY FUND................................	225	——	——	——
999205	COLORADO RIVER BASIN...............................	——	——	——	——
999206	TOTAL, POWER MARKETING ADMINISTRATIONS.............	616,058	745,720	665,111	548,389
999135	FERC SALARIES AND EXPENSES.........................	-3,465	-4,183	3,409	-900
999136	NUCLEAR WASTE DISPOSAL FUND........................	499,000	947,950	726,201	500,000
999160	GEOTHERMAL RESOURCES DEVELOPMENT FUND..............	72	72	76	72
999161	SPECIAL FOREIGN CURRENCY...........................	——	——	——	——
999137	ALTERNATIVE FUELS PRODUCTION.......................	——	——	——	——
989162	CLEAN COAL TECHNOLOGY..............................	——	——	——	50,000
999120	FOSSIL ENERGY RESEARCH AND DEVELOPMENT.............	251,402	315,035	212,233	168,900
999130	NAVAL PETROLEUM AND OIL SHALE RESERVES.............	122,177	207,639	159,985	159,700
999135	ENERGY CONSERVATION................................	149,679	160,258	101,712	86,098
999150	ENERGY REGULATION..................................	23,400	21,680	22,437	21,680
999149	EMERGENCY PREPAREDNESS.............................	6,044	6,956	6,431	6,206
999140	STRATEGIC PETROLEUM RESERVE........................	147,433	164,869	638,792	270,101
999145	ENERGY INFORMATION ADMINISTRATION..................	60,301	63,882	62,929	61,999
999147	PAYMENTS TO STATES.................................	705	570	727	727
999411	FOREIGN TRAVEL REDUCTION...........................	——	——	——	——
999153	UNALLOCATED OMB TARGET.............................	——	——	——	——
999412	PUBLIC & LEG. AFFAIRS..............................	——	——	——	——
999050	SUBTOTAL DOE.......................................	12,678,215	15,378,703	13,093,754	13,087,985

[illegible]

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DEPARTMENT OF ENERGY
FY 1988 CONTROL TABLE
(DOLLARS IN THOUSANDS)

BY APPROPRIATION

PAGE 33

A/C CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
999480	EFFECT OF PRIVATIZATION:				
999490	ALASKA POWER	—	—	—	—
999492	BONNEVILLE POWER	—	—	—	—
999494	SOUTHEASTERN POWER	—	-27,700	-27,490	—
999496	SOUTHWESTERN POWER	—	-30,041	-30,733	—
999498	WESTERN AREA POWER	—	—	—	—
999500	COLORADO RIVER BASIN	—	—	—	—
999502	NAVAL PETROLEUM & OIL SHALE RESERVES	—	—	-159,730	—
989022	TOTAL DOE	12,678,215	15,312,874	13,675,796	13,887,985

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
600000	RECEIPTS				
600002	URANIUM ENRICHMENT	-1,286,400	—	—	-1,301,000
600003	NAVAL PETROLEUM RESERVE	-608,339	-723,167	-705,167	-699,906
600004	POWER MARKETING				
600005	Power Marketing	—	-699,431	—	—
600006	Alaska	-6,262	—	-9,302	-8,469
600007	Bonneville	-128,400	—	-149,100	-123,400
600008	Southeastern	-114,000	—	-136,000	-120,789
600010	Southwestern	-92,490	—	-108,500	-40,906
600011	Western area	-381,283	—	-343,145	-396,545
600012	Total, Power Marketing	-716,435	-699,431	-736,047	-690,109
600016	NUCLEAR WASTE FUND - 1MIL FEE	-434,600	-514,500	-477,200	-481,300
600014	NUCLEAR WASTE FUND - SNF	-6,000	—	-23,500	-31,200
600015	NUCLEAR WASTE FUND - DEFENSE	—	—	-55,000	—
600018	NWF - INTEREST REALIZED	-133,500	-126,000	-119,900	-136,300
600025	OTHER	-14,400	-6,600	-6,600	-6,600
600030	TOTAL RECEIPTS	-3,199,670	-2,069,698	-2,143,414	-3,346,415
600035	TOTAL DOE LESS RECEIPTS	9,478,541	13,243,176	11,532,382	10,541,570
600036	EFFECT OF PRIVATIZATION RECEIPTS				
600037	NAVAL PETROLEUM RESERVE	—	723,167	705,167	—
600038	POWER MARKETING ADMINISTRATION	—	209,168	234,500	—
600039	TOTAL, DOE	9,478,541	14,175,511	12,472,049	10,541,570
600070	ADVANCES FOR COOPERATIVE WORK				
600071	ADVANCES FOR COOPERATIVE WORK	149,802	84,639	154,025	138,200
600073	PROPRIETARY RECEIPTS FROM THE PUBLIC	-149,802	-84,639	-154,025	-138,200
600074	TOTAL, ADVANCES FOR COOPERATIVE WORK	—	—	—	—

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
992000	ENERGY SUPPLY R&D				
70010	SOLAR ENERGY				
70013	SOLAR BUILDINGS ENERGY SYSTEMS				
70014	OPERATING EXPENSES..............................	5,920	5,250	5,250	5,250
70015	PLANT AND CAPITAL EQUIPMENT......................	—	150	150	150
70016	TOTAL, SOLAR BUILDING ENERGY SYSTEMS................	5,920	5,400	5,400	5,400
70049	PHOTOVOLTAIC ENERGY SYSTEMS				
70050	OPERATING EXPENSES..............................	39,371	24,000	24,000	20,100
70051	PLANT AND CAPITAL EQUIPMENT......................	1,000	800	878	300
70052	TOTAL, PHOTOVOLTAIC ENERGY SYSTEMS..................	40,371	24,800	24,878	20,400
70089	SOLAR THERMAL ENERGY SYSTEMS				
70090	OPERATING EXPENSES..............................	22,860	18,000	17,140	14,000
70091	PLANT AND CAPITAL EQUIPMENT......................	—	—	88	88
70092	TOTAL, SOLAR THERMAL ENERGY SYSTEMS.................	22,860	18,000	17,228	14,088
70099	BIOFUELS ENERGY SYSTEMS				
70100	OPERATING EXPENSES..............................	23,450	13,585	11,155	10,635
70101	PLANT AND CAPITAL EQUIPMENT......................	600	415	415	—
70102	TOTAL, BIOFUELS ENERGY SYSTEMS......................	24,050	14,000	11,570	10,655
70139	WIND ENERGY SYSTEMS				
70140	OPERATING EXPENSES..............................	11,986	12,640	8,140	8,140
70141	PLANT AND CAPITAL EQUIPMENT......................	4,670	400	400	400
70142	TOTAL, WIND ENERGY SYSTEMS..........................	16,656	13,040	8,540	8,540
70149	OCEAN ENERGY SYSTEMS				
70150	OPERATING EXPENSES..............................	4,474	3,000	3,000	3,000
70151	PLANT AND CAPITAL EQUIPMENT......................	—	—	—	—
70152	TOTAL, OCEAN ENERGY SYSTEMS.........................	4,474	3,000	3,000	3,000
70259	INTERNATIONAL SOLAR ENERGY PROGRAM				
70260	OPERATING EXPENSES..............................	750	523	523	523
70261	PLANT AND CAPITAL EQUIPMENT......................	—	—	—	—
70262	TOTAL, INTERNATIONAL SOLAR ENERGY PROGRAM...........	750	523	523	523

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
70269	SOLAR TECHNOLOGY TRANSFER				
70270	OPERATING EXPENSES................................	2,450	2,090	2,090	2,090
70271	PLANT AND CAPITAL EQUIPMENT.......................	50	—	—	—
70272	TOTAL, SOLAR TECHNOLOGY TRANSFER..................	2,500	2,090	2,090	2,090
70279	SOLAR ENERGY RESEARCH INSTITUTE				
70280	OPERATING EXPENSES................................	—	—	—	—
70281	PLANT AND CAPITAL EQUIPMENT.......................	545	1,977	1,180	620
70282	TOTAL, SOLAR ENERGY RESEARCH INSTITUTE............	545	1,977	1,180	620
70283	PROGRAM SUPPORT...................................	698	1,337	1,337	937
70285	RESOURCE ASSESSMENT...............................				
70286	OPERATING EXPENSES................................	600	950	700	700
70287	PLANT AND CAPITAL EQUIPMENT.......................	—	50	28	28
70288	TOTAL, RESOURCE ASSESSMENT........................	600	1,000	728	728
70290	PROGRAM DIRECTION - OTHER SOLAR ENERGY............	4,100	4,830	4,224	4,194
70308	SUBTOTAL, SOLAR ENERGY............................	123,532	90,005	80,698	71,175
70309	COOPERATIVE VENTURE R&D POOLS.....................	—	5,000	5,000	5,000
70313	GEOTHERMAL				
70314	OPERATING EXPENSES................................	20,830	21,630	19,935	15,935
70315	PLANT AND CAPITAL EQUIPMENT.......................	—	—	26	—
70316	TOTAL, GEOTHERMAL.................................	20,830	21,630	19,961	15,935
70317	HYDROPOWER				
70318	OPERATING EXPENSES................................	450	63	—	—
70319	PLANT AND CAPITAL EQUIPMENT.......................	—	—	—	—
70320	TOTAL, HYDROPOWER.................................	450	63	—	—
70321	ELECTRIC ENERGY SYSTEMS				
70322	OPERATING EXPENSES................................	11,276	10,500	7,600	6,500
70323	PLANT AND CAPITAL EQUIPMENT.......................	—	—	—	—
70324	TOTAL, ELECTRIC ENERGY SYSTEMS....................	11,276	10,500	7,600	6,500
70329	ENERGY STORAGE SYSTEMS				
70330	OPERATING EXPENSES................................	16,589	10,400	10,400	7,474
70331	PLANT AND CAPITAL EQUIPMENT.......................	—	—	26	26
70332	TOTAL, ENERGY STORAGE SYSTEMS.....................	16,589	10,400	10,426	7,500

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
40007	NUCLEAR ENERGY R&D				
40008	OPERATING EXPENSES..............................	—	—	—	—
40009	PLANT AND CAPITAL EQUIPMENT......................	—	—	—	—
40010	TOTAL, NUCLEAR ENERGY R&D........................	—	—	—	—
40014	LIGHT WATER REACTOR				
40015	OPERATING EXPENSES..............................	33,976	49,000	40,000	34,000
40016	PLANT AND CAPITAL EQUIPMENT......................	—	—	—	—
40017	TOTAL, LIGHT WATER REACTOR.......................	33,976	49,000	40,000	34,000
40020	ADVANCED REACTOR R&D				
40021	OPERATING EXPENSES..............................	72,968	94,050	73,400	67,170
40022	PLANT AND CAPITAL EQUIPMENT......................	2,500	4,850	5,300	3,500
40023	TOTAL, ADVANCED REACTOR R&D......................	75,468	98,900	78,700	70,670
40026	FACILITIES				
40027	OPERATING EXPENSES..............................	121,200	108,400	91,200	91,200
40028	PLANT AND CAPITAL EQUIPMENT......................	6,600	12,400	11,800	11,800
40029	TOTAL, FACILITIES................................	127,800	120,800	103,000	103,000
40032	WATER COOLED BREEDER				
40033	OPERATING EXPENSES..............................	13,800	—	—	—
40034	PLANT AND CAPITAL EQUIPMENT......................	—	—	—	—
40035	TOTAL, WATER COOLED BREEDER......................	13,800	—	—	—
40070	PROGRAM DIRECTION				
40071	OPERATING EXPENSES..............................	7,550	9,000	8,500	8,500
40072	PLANT AND CAPITAL EQUIPMENT......................	—	—	—	—
40073	TOTAL, PROGRAM DIRECTION.........................	7,550	9,000	8,500	8,500
40055	ADVANCED NUCLEAR SYSTEMS				
40056	OPERATING EXPENSES..............................	17,600	25,250	20,800	20,800
40059	PLANT AND CAPITAL EQUIPMENT......................	3,000	1,450	1,200	1,200
40062	TOTAL, ADVANCED NUCLEAR SYSTEMS..................	20,600	26,700	22,000	22,000

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
40074	CONVERTER REACTOR SYSTEMS				
40075	OPERATING EXPENSES................................	——	——	——	——
40076	PLANT AND CAPITAL EQUIPMENT.......................	——	——	——	——
40077	TOTAL, CONVERTER REACTOR SYSTEMS..................	——	——	——	——
40079	BREEDER REACTOR SYSTEMS				
40080	OPERATING EXPENSES................................	——	——	——	——
40081	PLANT AND CAPITAL EQUIPMENT.......................	——	——	——	——
40082	TOTAL, BREEDER REACTOR SYSTEMS....................	——	——	——	——
40063	SPACE/DEFENSE POWER SYSTEMS				
40064	OPERATING EXPENSES................................	38.000	105.400	102.400	70.750
40065	PLANT AND CAPITAL EQUIPMENT.......................	10.280	28.400	28.400	25.250
40066	TOTAL SPACE/DEFENSE POWER SYSTEMS.................	48.280	133.800	130.800	96.000
40089	GENERAL REDUCTION.................................	——	——	——	——
40090	SUBTOTAL, NUCLEAR R&D ACTIVITIES..................	327.474	438.200	383.000	334.170
40092	NUCLEAR WASTE TECHNOLOGY				
40093	OPERATING EXPENSES................................	——	——	——	——
40094	PLANT AND CAPITAL EQUIPMENT.......................	——	——	——	——
40095	TOTAL, NUCLEAR WASTE TECHNOLOGY...................	——	——	——	——
82010	CIVILIAN WASTE R & D				
82020	OPERATING EXPENSES................................	6.500	5.000	5.000	5.000
82030	PLANT AND CAPITAL EQUIPMENT.......................	——	——	——	——
82040	TOTAL, CIVILIAN WASTE R & D.......................	6.500	5.000	5.000	5.000
40100	REMEDIAL ACTION AND WASTE TECHNOLOGY				
40101	OPERATING EXPENSES................................	273.970	316.650	277.150	250.750
40102	PLANT AND CAPITAL EQUIPMENT.......................	2.900	1.350	1.350	750
40103	TOTAL, REMEDIAL ACTION AND WASTE TECHNOLOGY...........	276.870	318.000	278.500	251.500

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
30005	ENVIRONMENT, SAFETY, AND HEALTH				
130008	OPERATING EXPENSES..............................	59,914	75,400	71,400	67,900
130011	PLANT AND CAPITAL EQUIPMENT......................	2,100	------	2,170	2,100
130014	TOTAL, ENVIRONMENT, SAFETY, AND HEALTH..............	62,014	75,400	73,570	70,000
20002	BIOLOGICAL AND ENVIRONMENTAL RESEARCH				
20003	OPERATING EXPENSES..............................	179,492	214,400	205,500	205,500
20004	PLANT AND CAPITAL EQUIPMENT......................	14,500	22,500	12,000	12,000
20005	TOTAL, BIOLOGICAL AND ENVIRONMENTAL RESEARCH.........	193,992	236,900	217,500	217,500
50430	LIQUIFIED GASEOUS SPILL TEST FACILITY				
50435	OPERATING EXPENSES..............................	2,000	1,200	500	500
50440	PLANT AND CAPITAL EQUIPMENT......................	------	------	------	------
50445	TOTAL, LIQUIFIED GASEOUS SPILL TEST FACILITY.........	2,000	1,200	500	500
20049	MAGNETIC FUSION				
20050	OPERATING EXPENSES..............................	319,103	327,959	309,030	309,030
20051	PLANT AND CAPITAL EQUIPMENT......................	26,210	39,741	36,570	36,570
20052	TOTAL, MAGNETIC FUSION..............................	345,313	367,700	345,600	345,600
20053	BASIC ENERGY SCIENCES				
20054	OPERATING EXPENSES..............................	371,640	422,571	403,044	403,044
20057	PLANT AND CAPITAL EQUIPMENT......................	153,810	85,361	76,031	76,031
20058	TOTAL, BASIC ENERGY SCIENCES.........................	525,450	507,932	479,075	479,075
20065	ENERGY RESEARCH OVERSIGHT,ANALY. & UNIV. SUPPORT				
20069	ENERGY RESEARCH ANALYSIS				
20070	OPERATING EXPENSES..............................	2,000	3,700	3,700	3,700
20071	PLANT AND CAPITAL EQUIPMENT......................	------	------	------	------
20072	TOTAL, ENERGY RESEARCH ANALYSIS....................	2,000	3,700	3,700	3,700
20112	UNIVERSITY RESEARCH INSTRUMENTATION..................	5,000	5,000	5,000	5,000
20079	UNIVERSITY RESEARCH SUPPORT				
20080	OPERATING EXPENSES..............................	15,775	17,100	14,900	13,400
20081	PLANT AND CAPITAL EQUIPMENT......................	------	------	------	------
20082	TOTAL, UNIVERSITY RESEARCH SUPPORT.................	15,775	17,100	14,900	13,400

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
20083	ADVISORY & OVERSIGHT PROG. DIRECTION................	2,490	3,400	3,200	3,200
20084	SUBTOTAL, ENERGY RESEARCH OS.,ANAL., & UNIV. SUP.....	25,265	29,200	26,800	25,300
20089	MULTI-PROGRAM LABORATORIES FACILITIES SUPPORT				
20090	OPERATING EXPENSE.................................	14,255	13,900	12,900	12,900
20091	PLANT AND CAPITAL EQUIPMENT.......................	42,440	60,100	45,700	43,700
20092	TOTAL, MULTI-PROGRAM LABORATIES FACILITIES SUPPORT...	56,695	74,000	58,600	56,600
20095	SMALL BUSINESS INNOVATION RESEARCH PROGRAM............	——	——	——	——
999352	IN-HOUSE ENERGY MANAGEMENT				
159002	OPERATING EXPENSES................................	1,500	1,900	1,900	1,900
159003	PLANT AND CAPITAL EQUIP...........................	15,000	16,980	16,980	16,980
999353	TOTAL, IN-HOUSE ENERGY MANAGEMENT....................	16,500	18,880	18,880	18,880
159005	STRATEGIC FACILITIES UTILIZATION PROGRAM..............	——	——	2,175	2,175
159006	TECHNICAL INFORMATION & MANAGEMENT PROGRAM				
159007	OPERATING EXPENSES................................	13,848	13,100	13,100	13,100
159008	PLANT AND CAPITAL EQUIPMENT.......................	850	900	900	900
159009	SUPPORT FROM OTHER PROGRAMS.......................	-4,923	——	——	——
159010	TOTAL, TECHNICAL INFORMATION & MANAGEMENT PROGRAM....	9,775	14,000	14,000	14,000
20105	POLICY AND MANAGEMENT - ER (ESRD).....................	544	600	650	650
130026	POLICY AND MANAGEMENT - EP (ESRD).....................	——	——	——	——
130027	POLICY AND MANAGEMENT - (ES&H)ESRD....................	——	——	——	——
40107	POLICY AND MANAGEMENT - NE (ESRD).....................	1,803	2,500	2,210	2,200
70335	POLICY AND MANAGEMENT - CE(ESRD)......................	1,527	1,918	1,671	1,450
992089	TOTAL, ENERGY SUPPLY R & D	2,024,399	2,237,028	2,031,416	1,930,710

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
50466	UNOBLIG. CARRYOVER FOR LGF..........................	------	------	------	------
20265	SBIR FROM UNOBLIG-(CLEAN COAL TECH)ESRD.............	------	------	------	------
20213	SAVINGS FROM MANAGEMENT INITIATIVES - (ER)ESRD......	------	------	------	------
40295	SAVINGS FROM MANAGEMENT INITIATIVES - (NE)ESRD......	------	------	------	------
70700	SAVINGS FROM MANAGEMENT INITIATIVES - (CE)ESRD......	------	------	------	------
159505	SAVINGS FROM MANAGEMENT INITIATIVES - (MA)ESRD......	------	------	------	------
20220	USE OF FY86 DEFERRAL - (ER)ESRD.....................	------	------	------	------
70768	USE OF FY86 DEFERRAL - CE(ESRD)	------	------	------	------
210028	USE OF UNOBLIG. BALANCES - UE.......................	-604,158	------	------	------
40316	USE OF PRIOR YEAR BALANCES - SEPA	------	------	------	------
130041	ADP GENERAL REDUCTION - (ESH)ESRD...................	------	------	------	------
210050	GENERAL REDUCTION - ESRD............................	------	------	------	------
40400	USE OF PRIOR YEAR BALANCES - (NE)ESRD...............	-5,700	------	-16,000	-16,000
70780	USE OF PRIOR YEAR BALANCES - (CE)ESRD...............	------	------	------	------
130050	LESS TRANSFER FOR ES&H-(DP)AEDA.....................	------	------	------	------
70782	COOPERATIVE VENTURE R&D POOLS OFFSET - ESRD.........	------	------	-5,000	------
40286	ADJUSTMENT FOR CONG REDUCTION-(NE)ESRD..............	93	------	------	------
130056	ADJUSTMENT FOR CONG REDUCTION-(ES&H)ESRD............	3	------	------	------
20267	ADJUSTMENT FOR CONG REDUCTION-(ER)ESRD..............	379	------	------	------
70786	ADJUSTMENT FOR CONG REDUCTIONS-(CE)ESRD.............	915	------	------	------
70787	RESCISSIONS, DEFERRAL, SUPP - (CE)ESRD..............	-13,100	------	------	------
159555	RESCISSIONS, DEFERRAL, SUPP -(MA)ESRD...............	------	------	------	------
20264	RESCISSIONS, DEFERRALS, SUPP.-(ER)..................	-68,700	------	------	------
20266	REQUIREMENTS FOR FERS-(ER) ESRD.....................	------	------	921	------
40290	REQUIREMENTS FOR FERS-(NE) ESRD.....................	------	------	508	------
70791	REQUIREMENTS FOR FERS-(CE) ESRD.....................	------	------	316	------
130057	REQUIREMENTS FOR FERS-(ES&H) ESRD...................	------	------	473	------
159557	REQUIREMENTS FOR FERS-(MA) ESRD.....................	------	------	500	------
992090	TOTAL, ENERGY SUPPLY R & D..........................	1,254,131	2,237,028	2,013,134	1,914,710
992091	(OPERATING EXPENSES)................................	967,076	1,959,204	1,771,542	1,682,317
992092	(PLANT AND CAPITAL EQUIPMENT).......................	287,055	277,824	241,592	232,393

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
993000	URANIUM ENRICHMENT				
40108	URANIUM ENRICHMENT ACTIVITIES				
40109	OPERATING EXPENSES..................................	1,078,749	1,145,800	1,036,600	1,013,000
40110	PLANT AND CAPITAL EQUIPMENT........................	22,800	81,100	76,100	51,500
40111	EQUIVALENT REPAYMENT (NON-ADD)....................	——	——	(-15,000)	——
40112	REPAYMENT TO TREASURY...............................	104,000	270,000	166,000	——
40113	REPAYMENT TO TREASURY (NON-ADD)....................	——	——	——	(231,000)
40116	SUBTOTAL, URANIUM ENRICHMENT ACTIVITIES..........	1,205,549	1,496,900	1,278,700	1,064,500
40118	URANIUM PROGRAM DIRECTION..........................	4,775	5,400	5,300	5,500
40119	TOTAL, URANIUM ENRICHMENT ACTIVITIES..............	1,210,324	1,502,300	1,284,000	1,070,000
40138	REVENUES				
40139	OPERATING EXPENSES..................................	——	-1,502,300	-1,284,000	——
40140	PLANT AND CAPITAL EQUIPMENT........................	——	——	——	——
40141	TOTAL, REVENUES.......................................	——	-1,502,300	-1,284,000	——
40350	ADDBACK OF TRANSFER FOR ES&H-(NE)UE................	——	——	——	——
40352	REQUIREMENTS FOR FERS - (ES&H) ESRD................	——	——	207	——
40285	RESCISSIONS, REFERRALS, SUPP.......................	——	——	——	——
40287	ADJUSTMENT FOR CONG REDUCTIONS-(NE)UE..............	76	——	——	——
993090	TOTAL, URANIUM ENRICHMENT...........................	1,210,400	——	207	1,070,000
993091	(OPERATING EXPENSES)................................	1,187,600	-81,100	-75,893	1,018,500
993092	(PLANT AND CAPITAL EQUIPMENT)......................	22,800	81,100	76,100	51,500

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
991500	GENERAL SCIENCE				
20117	HIGH ENERGY PHYSICS				
20118	OPERATING EXPENSES..................................	398,279	486,800	471,300	437,198
20119	PLANT AND CAPITAL EQUIPMENT.........................	101,400	136,400	126,400	129,400
20120	TOTAL, HIGH ENERGY PHYSICS..........................	499,679	623,200	597,700	566,598
20121	NUCLEAR PHYSICS				
20122	OPERATING EXPENSES..................................	177,068	186,023	186,023	185,925
20123	PLANT AND CAPITAL EQUIPMENT.........................	39,975	73,675	55,675	59,175
20124	TOTAL, NUCLEAR PHYSICS..............................	217,043	259,698	241,698	245,100
20125	HIGH ENERGY AND NUCLEAR PHYSICS PROG. DIRECTION (OS).	2,453	3,500	3,100	2,800
991593	TOTAL, GENERAL SCIENCE..............................	719,175	886,398	842,498	814,498
20260	ADDBACK OF PROPOSED TRANSFER FOR ES&H - (ESH)ESRD...	----	----	----	----
20262	ADDBACK OF PROPOSED FTE REDUCTION - (ER)OS..........	----	----	----	----
20268	ADJUSTMENT FOR CONG REDUCTIONS-(ER)OS...............	342	----	----	----
20207	SAVINGS FROM FY84 INITIATIVES - (ER)OS..............	----	----	----	----
20212	GENERAL REDUCTION - (ER)OS..........................	----	----	----	----
20250	TRANSFER OF APPROPRIATION/AND NEW FERS..............	----	----	136	----
20255	GENERAL REDUCTION - OS..............................	----	----	----	----
991594	TOTAL, GENERAL SCIENCE..............................	719,517	886,398	842,634	814,498
991591	(OPERATING EXPENSES)................................	578,142	676,323	660,423	625,923
991592	(PLANT AND CAPITAL EQUIPMENT).......................	141,375	210,075	182,211	188,575

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A/B CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 COND. REQ. B/A
991000	ATOMIC ENERGY				
10010	RESEARCH, DEVELOPMENT AND TESTING				
10011	OPERATING EXPENSES................................	1,401.222	1,780.000	1,475.000	1,573.119
10014	PLANT AND CAPITAL EQUIPMENT........................	297.511	506.430	429.350	395.850
10022	TOTAL, RESEARCH AND DEVELOPMENT AND TESTING..........	1,698.733	2,286.430	1,904.350	1,968.969
10024	INERTIAL CONFINEMENT FUSION				
10025	OPERATING EXPENSES................................	142.713	22.500	112.500	112.500
10026	PLANT AND CAPITAL EQUIPMENT........................	8.858	1.500	1.500	6.000
10027	TOTAL, INERTIAL CONFINEMENT FUSION..................	151.571	24.000	114.000	118.500
10029	PRODUCTION AND SURVEILLANCE				
10030	OPERATING EXPENSES................................	1,813.336	2,046.000	1,923.744	1,911.330
10031	PLANT AND CAPITAL EQUIPMENT........................	447.772	353.770	441.106	461.106
10032	TOTAL, PRODUCTION AND SURVEILLANCE..................	2,261.108	2,399.770	2,364.850	2,372.436
10040	PROGRAM DIRECTION - DEFENSE PROGRAMS................	69.760	102.200	78.100	74.826
10059	MATERIALS PRODUCTION				
10060	OPERATING EXPENSES................................	1,455.324	1,910.539	1,541.100	1,489.039
10061	PLANT AND CAPITAL EQUIPMENT........................	403.037	619.461	435.600	392.581
10062	TOTAL, MATERIALS PRODUCTION.........................	1,858.361	2,530.000	1,976.700	1,881.620
10064	DEFENSE WASTE & TRANSPORTATION MANAGEMENT............				
10065	OPERATING EXPENSES................................	432.718	602.105	587.299	492.598
10066	PLANT AND CAPITAL EQUIPMENT........................	239.512	373.355	355.201	318.651
10067	TOTAL, DEFENSE WASTE & TRANSPORTATION MANAGEMENT.....	672.230	975.460	942.500	811.249
10049	VERIFICATION AND CONTROL TECHNOLOGY				
10050	OPERATING EXPENSES................................	92.109	121.753	96.500	95.500
10051	PLANT AND CAPITAL EQUIPMENT........................	4.648	5.705	5.400	5.100
10052	TOTAL, VERIFICATION AND CONTROL TECHNOLOGY...........	96.757	127.458	101.900	100.600
10069	NUCLEAR SAFEGUARDS & SECURITY				
10070	OPERATING EXPENSES................................	59.061	88.302	77.100	73.200
10071	PLANT AND CAPITAL EQUIPMENT........................	5.253	6.600	5.600	4.600
10072	TOTAL, NUCLEAR SAFEGUARDS & SECURITY.................	64.314	94.902	82.700	77.800

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
10079	SECURITY INVESTIGATIONS				
10080	OPERATING EXPENSES	32.675	38.000	36.000	32.000
40154	NAVAL REACTORS DEVELOPMENT				
40155	OPERATING EXPENSES	512.586	552.100	552.100	544.100
40156	PLANT AND CAPITAL EQUIPMENT	62.794	67.900	67.900	67.900
40157	TOTAL, NAVAL REACTORS DEVELOPMENT	575.380	620.000	620.000	612.000
991093	TOTAL, ATOMIC ENERGY	7.480.089	9.398.220	8.221.100	8.050.000
10160	ADDBACK OF TRANSFER TO ESAA-(DP)AEDA	----	----	----	----
10161	ADDBACK OF PROPOSED FTE REDUCTION - (DP)AEDA	----	----	----	----
40353	ADDBACK OF PROPOSED FTE REDUCTION - (NE)AEDA	----	----	----	----
10110	ADDBACK OF O-R-H RED. AGAINST BALANCES	----	----	----	----
10150	UNOBLIGATED BALANCES BROUGHT FORWARD	----	----	----	----
10204	GENERAL REDUCTION	----	----	----	----
10200	SAVINGS FROM MANAGEMENT INITIATIVES - (DP)AEDA	----	----	----	----
10202	SAVINGS FROM FY84 INITIATIVES - (DP)AEDA(FERS)	----	----	7.092	----
10203	ADJUSTMENT FOR CONG REDUCTIONS-(DP)AEDA	963	----	----	----
991095	TOTAL, ATOMIC ENERGY	7.481.852	9.398.220	8.228.192	8.050.000
991091	(OPERATING EXPENSES)	6.012.467	7.263.499	6.486.535	6.398.212
991092	(PLANT AND CAPITAL EQUIPMENT)	1.469.385	2.134.721	1.741.657	1.651.788

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
999000	DEPARTMENTAL ADMINISTRATION				
164005	OFFICE OF THE SECRETARY	1,914	1,934	1,934	1,920
162005	BOARD OF CONTRACT APPEALS	424	470	499	442
160006	GENERAL COUNSEL	10,926	11,559	10,944	10,944
170010	INSPECTOR GENERAL - CE	20,914	31,848	20,882	20,485
170012	INSPECTOR GENERAL - CE	250	407	288	288
170100	TOTAL, INSPECTOR GENERAL	21,164	32,255	21,170	20,773
151999	MANAGEMENT AND ADMINISTRATION				
152000	OPERATING EXPENSES	146,248	146,278	149,547	145,102
152005	PLANT AND CAPITAL EQUIPMENT	6,688	7,702	7,702	4,505
152009	TOTAL MANAGEMENT AND ADMINISTRATION	152,936	153,980	157,249	149,607
153024	OPERATIONS OFFICES				
153025	OPERATING EXPENSES	103,553	124,114	114,494	106,227
153026	PLANT AND CAPITAL EQUIPMENT	1,250	2,013	3,480	1,080
153028	TOTAL, OPERATIONS OFFICES	104,803	126,127	117,974	107,307
200010	MINORITY ECONOMIC IMPACT	3,087	3,091	3,319	3,319
120010	POLICY ANALYSIS AND SYSTEM STUDIES	5,226	7,902	8,045	8,045
999091	CONGRESSIONAL, INTERGOV. & PUBLIC AFFAIRS				
190037	PROGRAM DIRECTION	5,554	5,317	5,225	5,225
190010	INDIAN AFFAIRS	200	—	—	—
190030	CONSUMER AFFAIRS	50	65	65	65
190020	PUBLIC AFFAIRS	206	251	251	251
190021	COMPETITION	50	50	50	50
999092	SUBTOTAL, CONGRESS., INTERGOV. & PUBLIC AFFAIRS	6,060	5,683	5,591	5,591
140100	INTERNATIONAL AFFAIRS	4,237	5,466	5,416	4,916
140203	POLICY AND MANAGEMENT - IA(DA)	753	700	769	769
159017	COST OF WORK FOR OTHERS	115,050	110,570	110,570	110,570

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
159018	REVENUES ASSOCIATED WITH COST OF WORK..................	-143,420	-124,450	-124,450	-130,450
159019	OTHER REVENUES..	-108,519	-103,446	-103,446	-103,446
159020	SUBTOTAL, REVENUES....................................	-251,947	-227,896	-227,896	-233,896
999097	TOTAL, DEPARTMENTAL ADMINISTRATION....................	175,353	232,649	215,504	190,315
159517	ABSENCE OF PROPOSED RESCISSION-(MA)DA.................	———	———	———	———
159120	USE OF PRIOR YEAR BALANCES - (MA)DA...................	———	———	———	———
159509	SAVINGS FROM MANAGEMENT INITIATIVES - (MA)DA........	———	———	———	———
159508	REQUIREMENT FOR FERS - (MA)DA.........................	———	———	———	———
160010	SAVINGS FROM FY84 INITIATIVES - (OC)..................	———	———	———	———
190039	SAVINGS FROM FY84 INITIATIVES - (CP)..................	———	———	———	———
159512	LESS USE OF PRIOR YEAR BALANCES.......................	———	-6,000	-6,000	-24,182
159125	FTE REDUCTION-(MA)DA..................................	———	———	———	———
159551	ADJUSTMENT FOR PROPOSED FTE REDUCTION - (MA)DA.......	———	———	———	———
159553	LESS PROPOSED CONGRESSIONAL REDUCTIONS................	———	———	———	———
120030	UNOBL BAL TO FINANCE FY88-(PPA)DA.....................	629	———	———	———
140204	LESS USE OF PRIOP YR UNOBL BAL-(IA)DA.................	-200	———	———	———
159509	LESS USE OF PRIOR YR UNOBL BAL-(MA)DA.................	-22,891	———	———	———
160014	LESS USE OF PRIOR YR UNOBL BAL-(OC)DA.................	-973	———	———	———
162009	LESS USE OF PRIOP YR UNOBL BAL-(BCA)DA................	-60	———	———	———
164009	LESS USE OF RIOR YR UNOBL BAL-(OSEC)DA................	-106	———	———	———
170016	LESS USE OF PRIOR YR UNOBL BAL-(IG)DA.................	-72	———	———	———
190043	LESS USE OF PRIOR YR UNOBL BAL-(CP)DA.................	-1,145	———	———	———
200014	LESS USE OF PRIOR YR UNOBL BAL-(GNE)DA................	-437	———	———	———
159561	LESS USE OF PRIOR YR UNOBL BAL-(OPS)DA................	-10,581	———	———	———
999098	TOTAL, DEPARTMENTAL ADMINISTRATION (NET)..............	139,509	226,649	209,504	166,133
999095	(OPERATING EXPENSES - NET)............	131,321	216,527	198,114	160,260
999096	(PLANT AND CAPITAL EQUIPMENT - NET)............	8,188	10,122	11,470	5,873

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
997500	ALASKA POWER O&M				
70450	POWER MARKETING - ALASKA POWER ADMINISTRATION........	3,281	3,191	3,300	3,191
70703	USE OF PRIOR YEAR BALANCES - (C)APA.................	-400	———	———	-165
997090	TOTAL, ALASKA POWER	2,881	3,191	3,300	3,026
70805	EFFECT OF PRIVATIZATION - APA........................	———	———	———	———
70801	PRIV. - SALE OF ASSETS - APA(NON-ADD)................	———	———	———	———
999467	TOTAL, ALASKA POWER.................................	2,881	3,191	3,300	3,026

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
997200	BONNEVILLE				
81006	POWER MARKETING - BONNEVILLE POWER ADMINISTRATION....	-----	-----	-----	-----
81012	PERMANENT INDEFINITE BORROWING AUTHORITY.............	327,659	325,200	300,800	205,800
997290	TOTAL, BONNEVILLE POWER ADMIN.........................	327,659	325,200	300,800	205,800
81055	EFFECT OF PRIVATIZATION- BPA..........................	-----	-----	-----	-----
81056	PRIV. - SALE OF ASSETS - BPA(NON-ADD).................	-----	-----	-----	-----
81057	TOTAL, BONNEVILLE POWER ADMINISTRATION................	327,659	325,200	300,800	205,800

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 COND. REQ. B/A
997400	SOUTHEASTERN O&M				
70470	POWER MARKETING - SOUTHEASTERN POWER ADMINISTRATION..	21,736	27,700	27,490	27,400
70611	INCREASE IN NET BILLING..............................	----	----	----	----
70612	USE OF PRIOR YEAR DEFERRALS..........................	-2,089	----	----	----
997490	TOTAL, SOUTHEASTERN O&M..............................	19,647	27,700	27,490	27,400
70807	EFFECT OF PRIVATIZATION- SEPA........................	----	-27,700	-27,490	----
70802	PRIV. - SALE OF ASSETS - SEPA(NON-ADD)...............	----	----	----	----
999470	TOTAL, SOUTHEASTERN O&M..............................	19,647	----	----	27,400
997500	SOUTHEASTERN CONT. FUND				
70485	SOUTHEASTERN POWER - CONT. FUND......................	----	300	----	----
997590	TOTAL, SOUTHEASTERN CONT. FUND.......................	----	300	----	----

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
997800	SOUTHWESTERN O&M				
70400	POWER MARKETING - SOUTHWESTERN POWER ADMINISTRATION..	38,560	38,041	30,733	30,308
70634	USE OF PRIOR YEAR BALANCES CS (SWPWA)...............	-13,243	——	——	-13,660
70707	SAVINGS FROM MANAGEMENT INITIATIVES - (CE)SWPA......	——	——	——	——
70777	ADDBACK OF PROPOSED FTE REDUCTION - (CE)SWPA........	——	——	——	——
70785	ADJUSTMENT FOR CONG. REDUCTIONS-(CE)SWPA............	20	——	——	——
997890	TOTAL, SOUTHWESTERN O&M.............................	25,337	38,041	30,733	16,648
75809	EFFECT OF PRIVATIZATION- SWPA.......................	——	-38,041	-30,733	——
75803	PRIV. - SALE OF ASSETS - SWPA(NON-ADD)...............	——	——	——	——
999476	TOTAL, SOUTHWESTERN O&M.............................	25,337	——	——	16,648
998000	SOUTHWESTERN CONT. FUND				
70500	SOUTHWESTERN POWER - CONT. FUND.....................	——	——	——	——
998090	TOTAL, SOUTHWESTERN CONT. FUND......................	——	——	——	——

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
998200	WESTERN AREA O&M				
80005	POWER MARKETING - WAPA O&M..........................	280,292	351,000	302,708	292,997
80022	USE OF PRIOR YEAR BALANCES..........................	-43,466	—	—	-4,485
80025	SAVINGS FROM MANAGEMENT INITIATIVES - (WAPA)WAPA.....	—	—	—	—
80030	GENERAL REDUCTION...................................	—	—	—	—
80035	TRANSFER FROM DOI - WAPA(PERM.AUTH.)(NONADD).........	—	—	(-3,960)	—
80037	TRANSFER FROM DOI...................................	3,463	—	—	7,003
80040	ADDBACK OF PROPOSED FTE REDUCTION - (WAPA)WAPA.......	—	—	—	—
80042	ADJUSTMENT FOR CONG. REDUCTIONS-WAPA.................	20	—	—	—
998290	TOTAL, WESTERN AREA O&M.............................	240,309	351,000	302,708	295,515
80055	EFFECT OF PRIVATIZATION- WAPA.......................	—	—	—	—
80057	PRIV. - SALE OF ASSETS - WAPA(NON-ADD)...............	—	—	—	—
80050	TOTAL, WESTERN AREA POWER ADMINISTRATION.............	240,309	351,000	302,708	295,515
998400	WESTERN AREA POWER - EMERGENCY FUND				
80015	WAPA EMERGENCY FUND.................................	225	—	—	—
998490	TOTAL, WAPA EMERGENCY FUND..........................	225	—	—	—
998600	COLORADO RIVER BASIN				
80010	COLORADO RIVER BASIN (NON-ADD)......................	(82,000)	(87,000)	(87,000)	(87,000)
80056	EFFECT OF PRIVATIZATION- CRB........................	—	—	—	—
998690	TOTAL, COLORADO RIVER BASIN.........................	—	—	—	—

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
995600	FERC SALARIES AND EXPENSES				
90010	OIL PIPELINE REGULATION	5,519	100,324	5,730	5,778
90020	NATURAL GAS REGULATION	45,577	——	47,499	47,519
90030	HYDRO POWER LICENSING	27,828	——	29,728	29,670
90040	ELECTRIC POWER REGULATION	20,055	——	21,117	21,033
90079	USE OF ESRD BALANCES - (FERC)FERC	——	——	——	——
90043	TOTAL, FERC	98,979	100,324	104,074	104,000
90047	REVENUES	-102,544	-104,507	-104,971	-104,900
90080	TOTAL, F E R C	-3,565	-4,183	-897	-900
90045	REQUIREMENT FOR FERS	——	——	4,306	——
90078	TRANSFER FROM UNOBL. BAL. - ESRD	——	——	——	——
90075	ADDBACK OF PROPOSED FTE REDUCTION - (FERC)FERC	——	——	——	——
90070	LESS PROPOSED PAY RAISE SUPPLEMENTAL	——	——	——	——
90076	ADJUSTMENT FOR CONG. REDUCTIONS-(FERC)FERC	100	——	——	——
995690	TOTAL, FERC SALARIES AND EXPENSES	-3,465	-4,183	3,409	-900

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82060	NUCLEAR WASTE FUND				
82070	NUCLEAR WASTE FUND - OE......................................	486,961	896,147	725,000	300,000
82082	REQUIREMENTS FOR FERS......................................	——	——	1,201	——
82080	NUCLEAR WASTE FUND - PACE..................................	12,039	51,803	——	——
159011	NUCLEAR WASTE FUND..	——	——	——	——
160007	NUCLEAR WASTE FUND..	——	——	——	——
160009	ADDBACK OF CONGRESSIONAL REDUCTIONS.................	——	——	——	——
82100	TOTAL, NUCLEAR WASTE FUND...................................	499,000	947,950	726,201	300,000

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 COMB. REQ. B/A
996000	GEOTHERMAL RESOURCES				
70343	GEOTHERMAL RESOURCES DEVELOPMENT FUND................	72	72	76	72
996090	TOTAL, GEOTHERMAL RESOURCES...........................	72	72	76	72
994290	ALTERNATIVE FUELS PRODUCTION				
30447	ALTERNATIVE FUELS PRODUCTION - FE (AFP)..............	----	----	----	----
994291	TOTAL, ALTERNATIVE FUELS PRODUCTION..................	----	----	----	----
999464	CLEAN COAL TECHNOLOGY				
30449	CLEAN COAL TECHNOLOGY................................	----	----	----	50.000
30450	ADVANCE APPROP.(CCT) PERM............................	----	----	----	----
30451	CLEAN COAL TECHNOLOGY (NON-ADD)......................	(149.100)	----	(149.100)	(149.100)
30452	USE OF PRIOR YEAR BALANCES (SBIR)....................	----	----	----	----
30453	TOTAL, CLEAN COAL TECHNOLOGY.........................	----	----	----	50.000

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	992500 FOSSIL ENERGY				
50010	COAL				
50015	CONTROL TECHNOLOGY & COAL PREPARATION				
50020	OP. EXP. & CAP. EQUIP.	37.826	37.746	35.996	33.000
50025	CONSTRUCTION	—	—	—	—
50030	TOTAL, CONTROL TECHNOLOGY & COAL PREPARATION	37.826	37.746	35.996	33.000
50035	ADV. RESEARCH & TECHNOLOGY DEV				
50040	OP. EXP. & CAP. EQUIP.	32.387	41.218	29.109	26.000
50045	CONSTRUCTION	—	—	—	—
50050	TOTAL, ADV. RESEARCH & TECHNOLOGY DEV.	32.387	41.218	29.109	26.000
50075	COAL LIQUEFACTION				
50080	OP. EXP. & CAP. EQUIP.	24.107	21.900	11.527	9.500
50085	CONSTRUCTION	—	—	—	—
50090	TOTAL, COAL LIQUEFACTION	24.107	21.[illegible]	11.527	9.500
50095	COMBUSTION SYSTEMS				
50100	OP. EXP. & CAP. EQUIP.	15.142	22.800	17.299	21.600
50105	CONSTRUCTION	—	—	—	—
50110	ADVANCE APPROP.-AFB (PERM)	—	—	—	—
50115	TOTAL, COMBUSTION SYSTEMS	15.142	22.800	17.299	21.600
50120	FUEL CELLS				
50125	OP. EXP. & CAP. EQUIP.	28.084	20.000	8.414	5.200
50130	CONSTRUCTION	—	—	—	—
50135	TOTAL, FUEL CELLS	28.084	20.000	8.414	5.200
50140	HEAT ENGINES AND HEAT RECOVERY				
50145	OP. EXP. & CAP. EQUIP.	12.146	20.000	9.500	8.300
50150	CONSTRUCTION	—	—	—	—
50155	TOTAL, HEAT ENGINES AND HEAT RECOVERY	12.146	20.000	9.500	8.300
50160	UNDERGROUND COAL GASIFICATION				
50165	OP. EXP. & CAP. EQUIP.	2.370	1.500	1.500	—
50170	CONSTRUCTION	—	—	—	—
50175	TOTAL, UNDERGROUND COAL GASIFICATION	2.370	1.500	1.500	—

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
50180	MAGNETOHYDRODYNAMICS				
50185	OP. EXP. & CAP. EQUIP.	26.500	22.000	—	—
50190	CONSTRUCTION	—	—	—	—
50195	TOTAL, MAGNETOHYDRODYNAMICS	26.500	22.000	—	—
50200	SURFACE COAL GASIFICATION				
50205	OP. EXP. & CAP. EQUIP.	24.655	24.560	8.528	5.000
50210	CONSTRUCTION	—	—	—	—
50215	TOTAL, SURFACE COAL GASIFICATION	24.655	24.560	8.528	5.000
50230	SUBTOTAL, COAL	203.217	211.724	121.873	109.400
50235	GAS				
50240	UNCONVENTIONAL GAS RECOVERY				
50245	OP. EXP. & CAP. EQUIP.	8.009	4.452	4.452	1.600
50250	CONSTRUCTION	—	—	—	—
50255	TOTAL, UNCONVENTIONAL GAS RECOVERY	8.009	4.452	4.452	1.600
50270	SUBTOTAL - GAS	8.009	4.452	4.452	1.600
50275	PETROLEUM R&D				
50280	ADVANCED PROCESS TECHNOLOGY				
50285	OP. EXP. & CAP. EQUIP.	3.785	2.118	2.118	2.000
50290	CONSTRUCTION	—	—	—	—
50295	TOTAL, ADVANCED PROCESS TECHNOLOGY	3.785	2.118	2.118	2.000
50320	ENHANCED OIL RECOVERY				
50325	OP. EXP. & CAP. EQUIP.	11.211	7.209	17.209	9.300
50330	CONSTRUCTION	—	—	—	—
50335	TOTAL, ENHANCED OIL RECOVERY	11.211	7.209	17.209	9.300
50340	OIL SHALE				
50345	OP. EXP. & CAP. EQUIP.	10.967	6.020	6.020	955
50350	CONSTRUCTION	—	—	—	—
50355	TOTAL, OIL SHALE	10.967	6.020	6.020	955
50370	SUBTOTAL PETROLEUM	25.963	15.347	25.347	12.255

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
30400	POLICY AND MANAGEMENT				
30405	HEADQUARTERS PROGRAM DIRECTION........................	14.283	13.244	12.412	10.835
30410	ETC PROGRAM DIRECTION.................................	46.952	49.087	46.304	27.600
30412	FEDERAL INSPECTOR FOR THE ALASKA GAS PIPELINE.......	221	230	230	230
30415	CAPITAL EQUIPMENT.....................................	1.500	3.671	400	400
30420	CONSTRUCTION..	1.750	9.279	----	----
30425	SUBTOTAL, POLICY AND MANAGEMENT......................	64.706	76.311	59.426	39.145
30426	COOPERATIVE VENTURE R&D POOLS.........................	----	7.701	7.700	7.000
30427	UNDERC..	----	----	----	----
30428	WRI...	----	----	----	----
30460	TOTAL, FOSSIL ENERGY..................................	301.095	315.535	218.790	169.400
30462	USE OF FY86 DEFERRAL - (FE)FE.........................	-3.107	----	----	----
30465	USE OF UNOBLIGATED BALANCES - FE (FE).................	----	----	----	----
30467	TRANSFER FROM FOSSIL ENERGY CONSTRUCTION.............	-2.074	----	----	----
30470	TRANSFER FROM ALT. FUELS - FE (FE)...................	----	----	----	----
30475	TRANSFER FROM NAVAL PETROLEUM RESERVE................	----	----	----	----
30485	TRANSFER FROM ENERGY SEC. RES.	-437	-500	-500	-500
30490	PROGRAM OFFSET.......................................	----	----	----	----
32000	CV OFFSET...	----	----	-7.700	----
30496	SAVINGS FROM MANAGEMENT INITIATIVES - (FE) FE.......	----	----	----	----
30500	EMPLOYMENT FLOORS....................................	----	----	----	----
30501	ADVANCE APPROPRIATION MADE IN FY 1984/FERC..........	----	----	1.635	----
30486	TRANS FROM FED. INSP. FOR ALASKA.....................	-411	----	----	----
30509	RESCISSIONS, DEFERRALS, SUPP.........................	-44.464	----	----	----
30510	TOTAL, FOSSIL ENERGY..................................	231.402	315.035	212.230	168.900
992891	(OP. EXP. & CAP. EQUIP.).............................	231.726	305.756	212.230	168.900
992892	(CONSTRUCTION)..	-324	9.279	----	----

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
993500	NAVAL PETROLEUM AND OIL SHALE RESERVES				
50454	NAVAL PETROLEUM AND OIL SHALE RESERVES...............	158.638	207.639	177.700	177.700
50492	USE OF PRIOR YEAR BALANCES-NPR......................	-36.461	———	-18.000	-18.000
50500	SAVINGS FROM FY84 INITIATIVES - (FE)NPR/FERS........	———	———	245	———
993590	TOTAL, NAVAL PETROLEUM AND OIL SHALE RESERVES.........	122.177	207.639	159.945	159.700
50511	EFFECT OF PRIVATIZATION- NPR...........................	———	———	-159.735	———
50512	PRIV. - SALE OF ASSETS - NPR(NON ADD)..................	———	———	———	(-2.500.000)
999390	TOTAL, NAVAL PETROLEUM AND OIL SHALE RESERVES.........	122.177	207.639	210	159.700

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
994000	CONSERVATION				
70344	TRANSPORTATION	56,055	45,206	32,846	22,409
70350	INDUSTRIAL	35,026	33,068	17,972	16,035
70360	BUILDINGS AND COMMUNITY SYSTEMS	30,450	37,453	14,946	14,578
70375	MULTI-SECTOR	28,304	32,271	25,801	20,406
70378	FACILITIES	10,000	———	———	———
70380	COOPERATIVE VENTURE R&D POOLS	———	———	5,000	5,000
70376	POLICY AND MANAGEMENT - CE(EC)	1,862	2,471	1,662	1,662
70377	POLICY ANALYSIS	———	———	———	———
70381	SUBTOTAL, CONSERVATION RESEARCH AND DEVELOPMENT	161,697	150,469	98,227	80,090
70382	STATE AND LOCAL	213,500	9,789	7,789	6,000
70429	SUBTOTAL ENERGY CONSERVATION	375,197	160,258	106,016	86,090
70633	APPROPRIATED TO HHS CS (EC - IE)	———	———	———	———
70639	USE OF PRIOR YEAR BALANCES, EC	-7,518	———	———	———
70769	USE OF FY86 DEFERRAL - (CE)EC	———	———	———	———
70751	SAVINGS FROM MANAGEMENT INITIATIVES - (CE)EC R&D	———	———	———	———
70755	PETROLEUM OVERCHARGE (PODRA)	-134,067	———	———	———
70760	REMAINING INDEFINITE APPROPRIATION	46,517	———	———	———
70770	EMPLOYMENT FLOORS/FERS	———	———	696	———
70786	COOPERATIVE VENTURE R&D POOLS-CE	———	———	-5,000	———
70789	RESCISSIONS & REDUCTIONS TO INDEFINITE APPROP.	-130,450	———	———	———
994090	TOTAL, ENERGY CONSERVATION	149,679	160,258	101,712	86,090

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999200	ECONOMIC REGULATION				
100018	FUELS CONVERSION....................................	2,000	587	587	587
100060	COMPLIANCE..	13,685	13,105	13,105	13,105
100082	NATURAL GAS & ELECTRICITY...........................	2,060	2,092	2,092	2,092
100120	PROGRAM ADMINISTRATION..............................	655	701	1,227	701
100405	OFFICE OF HEARINGS AND APPEALS......................	5,000	5,195	5,426	5,195
999290	TOTAL, ENERGY REGULATION............................	23,400	21,680	22,437	21,680

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
995205	EMERGENCY PREPAREDNESS				
140285	ENERGY EMERGENCIES....................................	6,044	6,956	6,431	6,206
995210	TOTAL,EMERGENCY PREPAREDNESS...........................	6,044	6,956	6,431	6,206

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
994400	STRATEGIC PETROLEUM RESERVE				
50455	STRATEGIC PETROLEUM RESERVE........................	147,433	164,069	150,193	142,437
50502	USE OF PRIOR YEAR BALANCES.SPR/FERB................	—	—	419	—
50457	SUBTOTAL, SPR......................................	147,433	164,069	150,612	142,437
50456	SPR PETROLEUM ACCOUNT..............................	—	—	488,180	127,744
999999	TOTAL, STRATEGIC PETROLEUM RESERVE.................	147,433	164,069	638,792	270,181

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
994800	ENERGY INFORMATION ACTIVITIES				
110001	NATIONAL ENERGY INFORMATION SYSTEM				
110002	OIL AND GAS	12.569	13.173	12.625	12.625
110004	COAL, NUCLEAR, ELECTRIC AND ALTERNATE FUELS	3.989	5.059	4.809	4.809
110006	ENERGY MARKETS AND END USE	4.130	4.969	4.032	4.032
110008	AUTOMATED DATA PROCESSING SERVICES STAFF	8.727	7.513	7.213	7.413
110010	ENERGY INFORMATION CENTER	604	628	628	628
110012	STATISTICAL STANDARDS	855	1.188	1.090	1.090
110014	PROGRAM DIRECTION/FERS	19.104	20.553	21.883	20.777
110016	SUBTOTAL, NATIONAL ENERGY INFORMATION SYSTEM	49.978	53.083	52.280	51.374
110018	POLICY AND MANAGEMENT	10.323	10.759	10.649	10.225
110020	COLLECTION PRODUCTION AND ANALYSIS	——	——	——	——
110040	PROGRAM SERVICES	——	——	——	——
994890	TOTAL, ENERGY INFORMATION ACTIVITIES	60.301	63.842	62.929	61.599

QUESTIONS FROM SENATOR BUMPERS

SOLAR AND RENEWABLE ENERGY R&D

Question 83: Your budget request for solar and renewable energy R&D is $93.5 million, a 36 percent decrease from last year's appropriation. Is this decrease across-the-board? If not, which specific projects would be terminated or substantially reduced?

Answer: The FY 1988 solar and renewable energy budget request is very close to the FY 1987 request for these technologies. The difference between the FY 1988 request and the FY 1987 appropriation represents primarily projects involving engineering development or demonstration which DOE views as being appropriately within the province of the private sector. The major differences between solar and renewable energy appropriations and the FY 1988 budget request are summarized on a project or program subelement basis in the attached table.

QUESTIONS FOR SENATOR BUMPERS
SOLAR AND RENEWABLE ENERGY R&D
MAJOR DIFFERENCES BETWEEN FY 1987 APPROPRIATIONS AND THE FY 1988 BUDGET REQUEST
($ millions)

Question 83 continued:

Program	Project	FY 1987 Appro.	FY 1988 Request
Photovoltaics	Collector Research. Engineering improvements for more efficient and more cost effective PV panels, either flat plate or concentrator type.	$4.5	0
Photovoltaics	Systems Research. Improvements in module connectors, power hardware, and array field concepts.	$3.3	0
Photovoltaics	PVUSA - Utility scale system demonstration involving a variety of current technology.	$6.0	0
Photovoltaics	Materials Research. Other advanced Thin - Films	$5.0	$4.0
Photovoltaics	Fundamental Materials Research.	$5.0	$2.1
Solar Thermal	Systems and Applications Technology Research	$7.4	$3.4
Solar Thermal	Collector Technology Research	$9.2	$6.8
Biofuels	Regional Programs - various State/industry studies and "technology transfer" projects.	$4.0	0
Biofuels	Thermochemical Conversion Research	$5.5	$2.5
Biofuels	Biochemical Conversion Research	$6.8	$3.0
Wind	Aerodynamics Research	$4.0	$2.4
Wind	MOD-5	$4.5	0
Ocean	PICHTR 165 kW Systems Experiment	$2.0	0

Program	Project	FY 1987 Appro.	FY 1988 Request
Geothermal	Hydrothermal Industrialization - State sponsored resource assessment projects.	$2.0	0
Geothermal	Geopressured Research	$4.0	$2.7
Geothermal	Hot Dry Rock Research	$8.0	$3.6
Electric Energy Systems	Superconducting Technology /Advanced Cable Research.	$ .6	0
Electric Energy Systems	Hawaiian Cable - Deep Water Cable - complete cable design and electrical/ mechanical tests of design cable.	$3.7	0
Energy Storage	Aluminum Air Cell R&D.	$1.0	0
Energy Storage	Zinc Bromine Battery	$1.7	$ .3
Energy Storage	Sodium/Sulfur Battery (Alkali Battery Research)	$2.9	$1.1
Energy Storage	Thermal and Chemical Storage	$3.8	$ .8

QUESTIONS FROM SENATOR BUMPERS

HISTORY OF R&D FUNDING

Question 84: Your budget documents recognize both the important contribution solar and renewable energy can make to energy supply and the fact that the solar industry is "immature" and struggling "to reach and maintain even a modest level of stability." Hasn't the history of R&D funding in this area -- substantial cuts proposed by the Administration, add-ons by Congress, followed by Administration rescissions -- had the effect of increasing the instability of the solar and renewables industry? Why isn't an "immature" yet highly promising industry more deserving of Federal R&D support than a mature industry such as nuclear power, which is dominated by large companies? Why isn't it a better idea to provide the solar industry with some stability through a Federal research program which contains at least level funding from year to year?

Answer: Through continual interaction with industry, the Department refines its multiyear priorities for the various solar and renewable energy technologies. The FY 1988 budget request for solar and renewable energy reflects a Departmental consensus research agenda within the context of overall budget constraints to reduce Federal outlays. The funding levels for the FY 1987 and FY 1988 budget requests are about the same. However, the appropriated increase over the budget request for FY 1987 largely supported specific engineering development projects more appropriately the role of private sector. The Department views these types of activities as of lower technical priority and of lower return to the industry as a whole than the more basic and generic research proposed for funding. The Department believes that research of the type proposed for FY 1988 funding addresses the highest priority fundamental scientific and technical issues necessary for a technology base upon which industry can establish a broad range of renewable energy technologies as fully competitive energy supply options over the next several years.

QUESTIONS FROM SENATOR JOHNSTON

STRIPPER WELL

Question 85: The Stripper Well settlement provides that 20% of funds be reserved to pay the claims of parties who can prove injury due to overcharges. However, I understand that the Office of Hearings and Appeals has issued a statement (in the MAPCO decision) that "end-users of petroleum products who apply for MAPCO crude oil monies should be presumed injured."

This policy is not only counter to the Stripper Well settlement, but places the U. S. Government at risk to losing its full share of overcharge funds.

Question 85a:. What is the basis for OHA to presume injury on the part of petroleum product end-users?

Answer: The Federal and State governments agreed in the Stripper Well Settlement Agreement that parties intervening in the stripper well court litigation would receive $500 million, that up to 20 percent of crude oil overcharge funds in DOE escrow would be set aside to fund claims from injured parties who were not participants in the Stripper Well Settlement Agreement. Any remaining funds would be split equally by the Federal and State governments.

The Settlement Agreement indicates that OHA will continue to apply the precedent it has developed in Subpart V crude oil refund proceedings, and that the Settlement does not amend the Subpart V regulations. These regulations explicitly provide for the use of appropriate presumptions of injury in analyzing any refund claim, and OHA has employed such presumptions in the past when the time and cost entailed by proof of injury would deny refunds to large numbers of individuals and small business claimants. The adoption of presumptions of injury in crude oil overcharge cases follows this precedent, and was anticipated at the time the Settlement was executed. In addition, under the Settlement Agreement, since July 1986, the states have received over $754 million, and the Federal government has received $407 million.

Question 85b: Has the Department estimated how much this policy decision will cost the U.S. Treasury?

Answer: The total value of all the crude oil claims received to date is approximately $115 million. Of this figure, $45 million represents the value of a claim submitted by the Defense Department, and $70 million represents the value of all claims submitted by non-federal entities. The Department cannot estimate the value of claims that may be received in the future, or their impact on the U.S. Treasury.

Question 85c: Under this settlement the remaining 80% of overcharge funds, not needed for payments to injured parties, is to be divided equally between the Federal government and the States. However, we understand that approximately $300 million is available for distribution but is not being distributed.

What plans do the Department have to disburse these funds to the Federal and State treasuries?

Answer: The OHA is unable to distribute the remaining crude oil funds until final Subpart V procedures are issued for the relevant settlement funds. Those final procedures will be issued shortly. It is correct that approximately $300 million will be available for the federal treasury from consent order funds on which proposed procedures have been issued.

QUESTIONS FROM SENATOR JOHNSTON

STRIPPER WELL

Question 85(d): The Federal Government expects to yield approximately $2-$3 billion pursuant to the Stripper Well Settlement. How much does the budget assume as revenues from this source in FY 1988, FY 1989, and FY 1990?

Answer: The President's budget assumptions concerning anticipated revenues resulting from the Stripper Well and related case settlements include $770 million in FY 1988, $680 million in FY 1989, and nothing in subsequent years.

QUESTION FROM SENATOR JOHNSTON

STRATEGIC PETROLEUM RESERVE FILL RATE

Question 86: In your testimony you indicated that the SPR cannot be filled faster than 100,000 b/d because of the available storage capacity. Would you elaborate? Couldn't the leaching rate be accelerated to accomodate a higher SPR fill rate? Please explain what steps could be done to permit a higher SPR fill rate.

Answer: Capacity development (leaching) at SPR sites at the maximum possible rates would allow for an average fill rate of 100,000 barrels per day through FY 1990. While the SPR fill rate could exceed 100,000 barrels per day for short periods during this time frame due to capacity becoming available in surges as caverns are completed, fill rates in excess of 100,000 barrels per day during these periods would have to be followed by periods of fill at lower than 100,000 barrels per day for like periods, unless more expensive above-ground "interim" storage was utilized. Subsequent to FY 1990, a maximum SPR capacity development rate would allow a fill rate of approximately 200,000 barrels per day under a fill-to-capacity program.

QUESTIONS FROM SENATOR METZENBAUM

FEDERAL ENERGY MANAGEMENT PROGRAM

Question 87: Under the Federal Energy Management Program managers worked toward a goal of a 20 percent reduction in Federal buildings energy consumption from 1975 to 1985. The actual improvement over that period was 16.6 percent. Are there plans within the Department to re-establish a Federal buildings energy consumption goal?

Answer: The Department of Energy is participating in a working group of the Federal Interagency Energy Policy Committee ("656" Committee) to determine the feasibility of establishing a 10-year Federal buildings and facility goal for Federal agencies.

QUESTIONS FROM SENATOR METZENBAUM

FEDERAL ENERGY MANAGEMENT PROGRAM

Question 88: What, in the Department's view, would be a reasonable goal for the Federal Government to establish as a target for Federal buildings energy conservation by 1995?

Answer: The Department has participated in a Federal Interagency Energy Policy Committee ("656" Committee) task working group that is conducting a review of potential conservation targets that would be reasonable for Federal agencies.

QUESTIONS FROM SENATOR METZENBAUM

FEDERAL ENERGY MANAGEMENT PROGRAM

Question 89: Has the Department ever considered any type of incentives to encourage Federal agencies to improve energy efficiency and, of so, what are they? If these incentives have been used how have they worked? If they have not been used, please explain why not?

Answer: In reviewing Federal agency conservation efforts, one of the persistent difficulties in the past has been the need for significant expenditures to install energy conservation measures. Both the priority of Federal agency mission-related activities and the stringent budgetary climate have limited the amount of Federal funding available to achieve energy conservation initiatives. Recognizing this difficulty, the Department of Energy worked with the Federal Interagency Energy Policy Committee ("656" Committee) to establish the Federal Energy Conservation Shared Savings legislation enacted as part of the Consolidated Omnibus Budget Reconciliation Act of 1985. This new legislation permits Federal agencies to enter into contracts with private sector energy service companies to install cost effective energy conservation measures at their expense and "share" in any resulting savings accruing to the Federal Government. The Department considers this new legislation to offer significant opportunities and incentives to both Federal agencies and the private sector to achieve energy efficiency. The incentive for the Federal sector is that the cost of energy efficiency improvements will be borne by the private sector in exchange for sharing in the energy savings. The incentive for the private sector is expanded opportunities for an energy conservation market of up to $400 million. Federal agencies are just beginning to develop the initial contracts to test the shared savings potential. Consequently, there is no evaluation of their operation and workability. However, private sector interest has been significant and DOE is conducting technical assistance and outreach programs to assure the success of this innovative financing mechanism.

Other incentives are derived from Federal Employee Awareness programs including the annual Federal Energy Efficiency Awards sponsored by the Federal Interagency Energy Policy Committee and administered by the DOE. These awards are intended to recognize outstanding commitment to energy conservation by individuals and organizations within the Federal Government and are recognized as contributing to the Federal energy conservation effort.

QUESTIONS FROM SENATOR METZENBAUM

FEDERAL ENERGY MANAGEMENT PROGRAM

Question 90: What, in the Department's view, would be a reasonable goal for the Federal government to establish as a target for a reduction in the use of gasoline by the Federal automobile fleet by 1995? What was the level of such use in 1975 and 1985?

Answer: The Department of Energy has not conducted any evaluation of a gasoline reduction target for the Federal automobile fleet by 1995. Under provisions of the Motor Vehicle Information and Cost Savings Act, Federal agencies acquire vehicles that comport with the standard established by law. Reports from the General Services Administration (GSA) indicate that passenger vehicles acquired in FY 1985 achieved an average of 28.7 mpg -- surpassing the fuel efficiency standard of 27.5 mpg.

DOE's first consolidated Annual Report on Federal Energy Management includes data for 1977 and indicates that during FY 1977 the GSA fuel efficient vehicle program acquired vehicles averaging 19.3 miles per gallon. DOE data does not show mileage for FY 1975.

QUESTIONS FROM SENATOR METZENBAUM

EXXON FUNDS COMMITTED TO SLAP PROGRAMS

Question 91: Last year the Administration proposed no funding for the State and Local conservation grant programs because of the availability of oil overcharge funds. How much of these funds had actually been committed to the SLAP programs by the States and their use had actually been approved by DOE at the beginning of fiscal year 1987?

92: How much of the oil overcharge funding is currently committed to SLAP by the States and approved by DOE?

93: Please provide the Committee with an update of State's allocations of Exxon funds among the five eligible programs?

Answer: DOE does not have information concerning the status of State allocations and DOE approvals at the end of FY 1986, but rather maintains cumulative current totals. The attached chart shows the overall amount of Exxon funds proposed by the States and approved by DOE for use in the SLAP programs, and how those funds are distributed among the four programs. We have no information on the amount of Exxon funds which States have allocated to the LIHEAP program.

EXXON FUNDS PROPOSED BY STATES
AND APPROVED BY DOE FOR USE IN OSLAP PROGRAMS

		Approved States	*Unapproved States
State Energy Conservation Program	$122,022,000	21	36
Energy Extension Service	$ 22,586,000	14	43
Weatherization Assistance Program	$146,946,000	26	31
Institutional Conservation Program	$ 20,169,000	8	49
Total	$311,723,000		

*Includes States which have not submitted plans, and States whose plans DOE is reviewing.

QUESTIONS FROM SENATOR METZENBAUM

STATE AND LOCAL PROGRAMS

Question 94:	Please provide the Committee with an update of State's allocations of Stripper Well funds among these same five programs.
Answer:	State Allocation to date of Stripper Well funds to the five energy grant programs.

LIHEAP	ICP	WAP	EES/SECP .
$26.2M	3.1M	8.2	46.4M

Total $83.9M

For status of State Stripper Well plans see attachment to Question 79.

QUESTIONS FROM SENATOR METZENBAUM

STATE AND LOCAL PROGRAMS

Question 95: Last year, in response to the Committee's questions, the Department indicated that, since appropriations began in 1976 the Weatherization program has weatherized approximately 10% of eligible homes and that, since appropriations began in late 1978 the Schools and Hospitals program has weatherized approximately 8% of eligible buildings. It appears that the need targeted by these programs is well in excess of available resources. Why then is the Administration requesting no funding for grants?

Answer: We believe that the $2.1 billion Exxon funds, other oil overcharge funds, and locally generated resources are sufficient to weatherize homes and schools and hospitals at a pace the delivery system can satisfy. Moreover, allocation decisions and priorities are properly left to the State with DOE's role limited to support, technical assistance, guidance, and oversight.

QUESTIONS FROM SENATOR METZENBAUM

STATE AND LOCAL PROGRAMS

Question 96: What additional percentage of eligible buildings could the Exxon funds weatherize under these two programs assuming roughly the same proportion of funding between the two prorams?

Answer: Historically the percentage of appropriated OSLAP funds allotted to WAP has been approximately 66 percent and to ICP 15 percent. WAP funds used to weatherize a residence are just over $1,000 each. Therefore, if Exxon funds were applied to weatherization at the same rate, nearly 1.5 million homes would be weatherized by these monies alone, well over 10 percent of the remaining eligible residences.

Regarding the Schools and Hospitals program, 3,600 buildings were retrofitted with a $50 million grant allocation. Assuming 15 percent of the Exxon funds are applied to retrofitting schools and hospitals, approximately 18,000 buildings would be weatherized by these monies, or an additional 2.5 percent of eligible buildings.

QUESTIONS FROM SENATOR METZENBAUM

STATE AND LOCAL PROGRAMS

Question 97: Is there any requirement that States spend either Exxon funds or Stripper Well funds on these two programs?

Answer: There is no requirement in the Stripper Well Settlement Agreement to spend funds on either of the referenced programs. However the funds may be spent on the four Department of Energy grant programs or LIHEAP. Section II.B.3.f.ii of the Settlement Agreement, entitled "Restitutionary Program," states:

> "State funding of programs shall be limited to (1) those programs approved by OHA in Subpart V refund proceedings; (2) those referenced in the consent order which DOE entered into in 1981 with Standard Oil Company of California (Chevron)(46 Fed. Reg. 52221; October 26, 1981); (3) the types of energy conservation activities set forth in the following legislation:
>
> (a) Part A of the Energy Conservation and Existing Buildings Act of 1976 (relating to weatherization of buildings; 42 U.S.C. 6861 et. seq.);
>
> (b) Part D of Title III of the Energy Policy and Conservation Act (relating to

primary and supplemental State energy conservation programs; 42 U.S.C. 6321 et. seq.);

(c) Part G of Title III of the Energy Policy and Conservation Act (relating to the energy conservation for schools and hospitals; 42 U.S.C. 6371 et. seq.);

(d) The National Energy Extension Service and Conservation Act (relating to the promotion of conservation by small businesses and individuals; 42 U.S.C. 7001 et. seq.); and

(e) The Low-Income Home Energy Assistance Act of 1981 (relating to assisting the poor with home utility bills; (42 U.S.C. 8621 et. seq.);

and (4) such other restitutionary programs as may be approved by the District Court."

The June 7, 1983 District Court Order in the Exxon case does require that Exxon funds be spent on any of the five Warner Amendment programs.

QUESTIONS FROM SENATOR METZENBAUM

STATE AND LOCAL PROGRAMS

Question 98: The settlement in the Stripper Well case requires that "an equitable share" of these funds go to low-income programs. What criteria is the Department using to determine whether this requirement is being met?

Answer: In a stipulation to which the DOE is not a party (attached), the states have committed to:

> fund existing or new low-income programs in a manner that provides low income consumers with an equitable share of the funds allocated to each State.

Notwithstanding the absence of DOE as a party, as part of the review of plans submitted by each State at least 30 days prior to expending funds, DOE examines the information submitted for compliance with the agreement including the States stipulation.

Attachment

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS

IN RE: THE DEPARTMENT OF ENERGY STRIPPER WELL EXEMPTION LITIGATION	M.D.L. No. 378

STIPULATION AND ORDER

The intervenor States' Negotiating Committee (the "States") and the Refiners, Resellers, Retailers, Airlines, Agricultural Cooperatives, Surface Transporters and Utilities who are parties to the Final Settlement Agreement (the "Agreement") hereby enter into the following Stipulation with the Georgia Poverty Rights Organization, et al. (the "Poverty Organizations"), and represent to the Court that the Department of Energy ("DOE") does not object to Court approval of this Stipulation:

1. The parties to this Stipulation recognize that the Poverty Organizations have appealed this Court's Order denying their motion for intervention, and that the Poverty Organizations also have filed comments with respect to the Agreement.

2. In consideration of the Poverty Organizations' agreement to dismiss their appeal, the parties to this Stipulation agree that any Order approving the Agreement should include the following addendum to Paragraph II.B.3.f.ii thereof:

Each State shall fund existing or new low-income programs in a manner that provides low-income consumers with an equitable share of the funds allocated to each State. In determining an appropriate equitable share for low-income consumers, each State may consider, among other factors, such factors as:

i) the size of the low-income population in each State; and

ii) the energy consumption by low-income consumers during the Settlement Period.

To qualify as a low-income program, a program must:

i) provide benefits exclusively to low-income consumers;

ii) have an eligibility ceiling at or below that of the Low Income Home Energy Assistance Act of 1981 (42 U.S.C. 8621 et seq); and

iii) otherwise meet the criteria set forth in Paragraph II.B.3.f.ii of the Agreement.

Each State shall consult with representatives of low-income groups in such State prior to establishing the appropriate equitable share of such funds to be allocated to low-income consumers and the specific low-income programs to be funded. This provision is designed to assure that States give consideration to the needs of low-income consumers and provide an equitable level of benefits to low-income consumers in each State. Nothing herein is intended to prohibit a State from spending additional funds to benefit low-income consumers.

3. The Poverty Organizations agree that they will not further oppose and will not take any position inconsistent with the terms and conditions of the Agreement.

Respectfully submitted,

MORRIS, LAING, EVANS, BROCK &
KENNEDY, Chartered
Fourth Floor, 200 West Douglas
Wichita, Kansas 67202
(316) 262-2671

By: Joseph W. Kennedy
Joseph W. Kennedy

Member of the Refiners' Negotiating Committee and authorized to sign on behalf of the following:

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Attorney General
Commonwealth of Massachusetts

John K. Van de Kamp
Attorney General
State of California

Dave Frohnmayer
Attorney General
State of Oregon

and

James F. Flug
Andrew P. Miller
Bernard Nash

For the REFINERS' NEGOTIATING COMMITTEE:

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R. Bruce McLean, P.C.
William C. Streets

For the RESELLERS:

Robert S. Bassman
Douglas B. Mitchell
Alphonse M. Alfano ,

For the RETAILERS:

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For the AIRLINES:

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APPROVED at Wichita, Kansas, this _____ day of June, 1986.

United States District Judge

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Stipulation and Order was served by first class mail, postage prepaid, this 12th day of June, 1986, upon all counsel of record.

Joseph W. Kennedy

Joseph W. Kennedy

QUESTIONS FROM SENATOR METZENBAUM

ESCROW ACCOUNT EXCESS

Question 99a: The Omnibus Budget Reconciliation Act of 1986 provided that "excess" amounts, up to $200 million, in the Petroleum Violation Escrow (PVE) Account shall be available for the State and Local Conservation Program grants.

Please provide the Committee the total amounts deposited in the PVE for each of the last five years, and the amounts which were considered to be "excess" for these five years.

Answer: The total amounts deposited into the Department's Escrow Account during the last five years are as follows:

FY 83 - $58,344,907.65

FY 84 - $119,373,192.63

FY 85 - $574,514,528.06

FY 86 - $2,555,967,109.86

FY 87 (through 1/31/87) - $92,206,543.36

Before proceeding any further with our response to this question, we need to clarify certain matters. The word "excess" is a term of art that is used in the Petroleum Overcharge Distribution and Restitution Act of 1986 (PODRA), contained in Title III of the Omnibus Budget Reconciliation Act. It is defined as the amount of escrowed oil overcharge funds that will not be needed for direct restitution to injured persons. Since PODRA does not affect crude oil overcharge funds whose distribution is governed by the Stripper Well Settlement Agreement, only escrowed refined petroleum product overcharges were covered. The first and only such determination of "excess" funds that has been made to date occurred after the Omnibus Reconciliation Act was signed into law on October 21, 1986. Pursuant to PODRA, the Department determined on December 1, 1986, that $134,066,670.22 in "product" oil overcharge funds was "excess." Those funds have been transferred to an appropriate account within the U.S. Treasury and are available for distribution to the State governments.

Pursuant to the Warner Amendment (section 155 of Pub. L. No. 97-377), the Department determined in February 1983 that $200 million in oil overcharge funds was not needed to pay injured parties, and it distributed that amount to State governments. That determination was different from the one recently made under the terms of PODRA.

In addition, it should be noted that approximately $2 billion of the money shown above as having been deposited into the Department's escrow account in 1986 was received in the Exxon litigation, and immediately distributed to the states. Neither the Exxon funds, nor any other crude oil overcharges deposited in DOE's escrow during the last five years was covered by PODRA and considered in determining the amount of "excess" funds.

Question 99b: How does the Department determine "excess" amounts in the PVE?

To determine "excess" amounts late last year, the Department made a detailed, case-by-case review of all proceedings subject to the Omnibus Budget Reconciliation Act of 1986. Keeping in mind that provision of the legislation which directs that "primary consideration [be given] to assuring that at all times sufficient funds (including a reasonable reserve) are set aside for making [direct] restitution," the Department established a reserve in each case sufficient to pay all claims presently pending and expected to be filed. In addition, reserves were established to account for matters in litigation. The remainder was determined to be "excess."

Question 99c: Please provide the Committee with rough estimates for the amounts expected to be deposited into the PVE and paid out in awards, or as "excess" for FY 87, FY 88 and FY 89.

Answer: According to the Economic Regulatory Administration, the Department expects to collect approximately $2.344 billion in additional amounts for deposit into the PVE. This is an extremely rough estimate, which may vary in both amount and time of deposit. Since many of the amounts included in this estimate of future collections are or will be the subject of litigation, it is not possible to accurately predict the fiscal year in which they will be received.

With respect to money from product overcharges, $134,066,670.22 was determined to be "excess" in

FY87. For FY88, the Act required the Department to transmit to the House and the Senate on March 1, 1987, an estimate of "excess" funds for FY88. That estimated "excess" was determined to be no less than $37 million, and the actual determination of "excess" funds will be made pursuant to PODRA in early FY88. At the current time, a total of $230 million in oil overcharge funds is subject to the Omnibus Budget Reconciliation Act of 1986. It is reasonable to assume that a portion of those funds will be paid to injured parties and a portion will be declared "excess." However, it is impossible at this time to predict during which fiscal year -- FY88 or FY89 -- these funds or additional funds which will be received will be determined to be "excess."

QUESTIONS FROM SENATOR METZENBAUM

Question 100: Please list, by facility, the amount of funds requested for Environment, Safety and Health activities at DOE Nuclear Facilities in FY 88, and the amount appropriated for FY 87.

Answer: Funding for Environment, Safety and Health Activities is provided on the attached document. This funding assures the safe and environmentally sound operation of DOE facilities. However, the funding shown does not include programs which are safety or environmental programs in and of themselves. These include Defense Waste, Remedial Actions and the Nuclear Waste Fund.

Attachment

Department of Energy
Environmental, Safety and Health Activities
(BA in Thousands)

	FY 1987	FY 1988
Environment, Safety and Health		
Albuquerque Operations	$ 60.0	$ --
All other (Foreign)	20.0	150.0
Argonne National Lab	1,025.0	1,050.0
Battelle Memorial Inst.	5,100.0	5,137.0
Brookhaven National lab.	1,085.0	830.0
Chicago Operations Office	260.0	260.0
EG&G Idaho, Idaho Falls, ID	3,330.0	3,365.0
EG&G Idaho, Las Vegas, NV	5,609.0	5,975.0
Lawrence Berkeley Lab.	50.0	50.0
Lawrence Livermore Lab.	2,522.0	3,439.0
Los Alamos National Lab.	905.0	570.0
Martin Marietta, ORNL	3,250.0	3,145.0
NUS Corp., Rockville, MD	1,197.9	--
Nevada operations	750.0	750.0
Oak Ridge Associated U.	1,035.0	1,140.0
Science Appl. Inc.	215.0	215.0
Other Contractors/Obligations	35,601.0	43,924.0
Total	$ 62,014.9	$ 70,000.0
Defense Programs		
Albuquerque	128,000.0	126,000.0
Idaho	33,000.0	35,000.0
Nevada	35,000.0	36,000.0
Oak Ridge	158,000.0	183,000.0
Richland	121,000.0	139,000.0
San Francisco	38,000.0	50,000.0
Savannah River	152,000.0	171,000.0
Total	$665,000.0	$740,000.0
Uranium Enrichment		
Paducah	8,783.0	10,117.0
Portsmouth	19,459.0	21,762.0
ORGDP	15,483.0	14,353.0
Total	$ 43,725.0	$ 46,232.0

	FY 1987	FY 1988
Energy Research		
ANL	--	820.0
BNL	5,180.0	5,911.0
Fermi	4,000.0	5,400.0
HEDL	892.0	617.0
INEL	1,807.0	500.0
LBL	900.0	2,550.0
LLNL	3,600.0	162.0
ORNL	31,045.0	31,887.0
PNL	--	1,000.0
PPPL	2,086.0	2,302.0
SLAC	1,600.0	1,800.0
Total	$ 51,110.0	$ 52,949.0
Nuclear Energy		
ANL (East & West)	3,647.0	4,258.0
ETEC	1,176.0	1,546.0
HEDL	16,923.0	17,921.0
INEL	1,733.0	1,800.0
ORNL	622.0	652.0
Total	$ 24,101.0	$ 26,177.0
Total, Department of Energy	$845,950.9	$935,358.0

QUESTION FROM SENATOR METZENBAUM

101. Also list, by facility, the amount of those funds which are devoted to remedial activities as well as a description of each remedial activity undertaken at each facility for FY 87, and requested for FY 88.

Answer: A listing is provided of line-item construction projects that are directed primarily at correcting environmental, safety or health related deficiencies at DOE sites.

(dollars in thousands)

Facility	Description
Lawrence Livermore National Laboratory	o Environmental Compliance and Cleanup: FY 1988, $9,000. This project is a portion of a multi-year funded program designed to correct problems associated with groundwater contamination, soil contamination, landfills, liquid waste discharges, underground tanks, and PCBs. Initial efforts will focus primarily on remedial activity needed for compliance with State of California waste discharge requirements.
	o Decontamination and Waste Treatment Facility: FY 1988, $12,000; FY 1987, $5,315. This project will provide new facilities for decontamination and waste treatment. Deficiencies were found in existing facilities during environmental audits performed in 1984. These deficiencies include radioactive contamination of non-radioactive waste, and the inability to meet the City of Livermore sewer ordinance, EPA's 40 CFR 413 and 433, DOE Order 5480.1 Chapter XI, Subpart I of 40 CFR 264 and California's Title 22, Chapter 30.

- Seismic Up-grade, Bldg. III: FY 1988, $1,100.

  Building III at LLNL, primarily used as office space, suffered structural and other damage during the January, 1980 earthquake at Livermore. This project proposes the addition of reinforced concrete shear/stair towers to strengthen the building and to prevent additional damage from occurring during future earthquakes.

Los Alamos National Laboratory

- Sanitary Water Systems Consolidation: FY 1988, $1,000.

  This project provides for a new sanitary wastewater treatment plant and collection system. The new plant will replace existing treatment facilities and septic tanks designed and constructed more than 30 years ago.

Richland Operations (Hanford)

- Reduce Chemical Discharges: FY 1988, -0-; FY 1987, $3,100.

  This project will provide engineered systems and facilities to isolate chemical releases from the fuels processing building, tank farms, and pipe trench from the process sewers and will direct spills from these sources to a facility for treatment and subsequent disposal.

- Liquid Effluent Treatment: FY 1988, $5,000; FY 1987, $3,937.

  This project is designed to remove low-level radioactivity from N-reactor effluent. The volume of the effluent will be reduced and the effluent treated to remove contaminants. Recovered wastes will be disposed on-site. This project will reduce reliance on soil columns for treatment of radioactive wastes.

Savannah River Operations

- Effluent Treatment Facility: FY 1988, $19,175; FY 1987, $13,435.

  Design, procure and construct a new wastewater storage and treatment facility to process routine wastewater and spills for the chemical separation facilities in F and H areas. Includes a 235 gpm treatment plant, buildings, two storage basins with 2.0 million gallons capacity, two above ground wastewater storage tanks of 950,000 gallons each, and other associated facilities.

- Non-Radioactive Hazardous Waste Mangement: FY 1988,; $4,200.

  Install an incinerator in H-area to detoxify and volume-reduce solid and liquid hazardous waste, low-level radioactive waste, and mixed waste for final disposal in compliance with RCRA regulations.

- Environmental Protection: FY 1988, $2,800; FY 1987, $1,476.

  This project provides facilities to prevent spills of hazardous and/or radioactive materials into groundwater or surface waters. Work consists of spill containment, instrumentation, rerouting demineralizer neutralization waste, buildings for storage of drums of hazardous or radioactively contaminated wastes, waste collection tank, and upgrading and adding spill containment facilities.

Oak Ridge Operations (Fernald)

- Environmental Up-grade: FY 1988, $35,000; FY 1987, $9,842.

  This project makes physical plant improvements that will minimize potential for transfer of radionuclides from the plant to the environment; improvements include construction of buildings and pads to contain uranium releases; installation of high

	efficiency filters to control uranium emissions; improved separation of process and non-process work areas; installation of new emergency alarm and announcement system; and new expanded office space.
Idaho National Engineering Laboratory	o TRA, Radioactive Liquid Waste Control Program: FY 1988, $3,900; FY 1987, $689. This project implements the final phase of the Test Reactor Area (TRA) Liquid Waste Control Program at the Idaho National Engineering Laboratory, with the objective of reducing radioactive liquid effluents from the TRA to zero. To accomplish this, processed liquid wastes containing tritium will be collected in a lined leaching pond and evaporated by solar energy.
Albuquerque Operations (Pantex Plant)	o High Explosive Machining Facility: FY 1988, $2,700. This project is for the design and construction of a new production machining facility to allow remote machining of high explosives thereby significantly enhancing protection of the machine operators.
Oak Ridge Operations (Y-12 Plant)	o Air/Water Pollution Control Facilities: FY 1988, $998; FY 1987, $9,842. This project provides for plant modifications to allow isolation of process water and surface water drainage from mercury-contaminated areas and water treatment facilities at primary points of discharge, thereby reducing significantly the amount of mercury currently emanating from plant effluents. Mercury-contaminated wastewater will be handled by small

source treatment units being developed by Y-12. Project also allows modifications and additions to existing enriched uranium process exhaust system to reduce discharge of uranium to the environment.

o Environmental Improvements: FY 1988, $5,878; FY 1987, $9,842.

This project provides for construction of new facilities and modification of existing facilities for the handling and treatment of liquid and solid wastes and the containment and elimination of major pollution sources and hazards. There are twelve subprojects within the scope of the overall effort.

Albuquerque
Operations
(Mound)

o Environment, Safety and Health Upgrade: FY 1988, $1,737; FY 1987, $2,342.

This project includes modifications and upgrades to the storm and sanitary drainage system to control and prevent the spread of contaminated discharge into the surface runoff system and underlying aquifer. The project will separate process water from the storm system and will upgrade the storm and sanitary system.

Albuquerque
Operations
(Rocky Flats)

o Plutonium Facility Structural Upgrade: FY 1988, $221; FY 1987, $2,400.

This project upgrades structure of three Class I Plutonium facilities at Rocky Flats Plant to meet present criteria for natural phenomena forces produced by earthquakes, tornadoes, and extreme sustained winds.

Pacific Northwest
Laboratory

o Sewage Treatment Facility: FY 1988, $1,000.

This project is necessary to correct known deficiencies in both the 300 Area sanitary and in-building process sewer collection systems and to provide a new sanitary sewage treatment plant which will meet State regulations for disposal of sanitary sewage.

- Laboratory Restoration: FY 1988, -0-; FY 1987, $2,100.

  This project will remove approximately 140 existing, obsolete filter housings and replace them with new support stands, ductwork, and instrumentation that will allow self-contained, disposable filter units to be used. To comply with the release limits for radionuclides given in DOE Order 5480.1, Chapter XI, two stages of filtration must be provided for air exhausted from hoods and gloveboxes in which radioactive materials are used.

Lawrence Berkeley Laboratory

- Hazardous Waste Handling Facility: FY 1988, $500.

  This proposal will provide for interim storage of hazardous wastes before offsite disposal. The project is intended to reduce exposure risk in an area of high population.

- Environment, Safety and Health Project: FY 1988, $850.

  This project comprises a variety of improvements that have environment, safety and health implications. It includes improved air sampling and monitoring equipment, better medical facilities, enhanced treatment of certain wastes, monitoring wells for underground fuel storage tanks, ventilation system rehabilitation, improvements in water supplies and lighting, and upgraded chemical storage facilities.

Brookhaven National Laboratory

- o Environmental Improvements: FY 1988, $611.

  This project funds environmental improvements the connection of twelve buildings now being served by cesspools to the central sanitary sewage system; and the removal of asbestos insulation from ventilating ducts, piping, and equipment in four buildings.

Argonne National Laboratory

- o Plant Modificatons: FY 1988, $820.

  This project corrects coal pile runoff problems; to divert certain contaminated streams from storm water drainage to the sanitary system, and to eliminate the generation of water treatment sludge and the existing sludge pond.

Oak Ridge National Laboratory

- o Low-Level Liquid Waste Collection and Transfer: FY 1988, $4,800.

  This project upgrades a portion of the underground piping systems which tranfers low level radioactive wastes from the process to an evaporation facility for volume reduction. Includes piping, leak detection and monitoring systems, central collection facility, and transfer trucks.

- o Non-Radioactive Waste Water Treatment: FY 1988, $8,000; FY 1987, $7,000.

  This project will address certain nonradiological process waste streams which are currently discharged untreated into area creeks and the active use of surface impoundments for process wastewater. This project proposes to modify process systems and to collect and treat these streams as required to meet discharge parameters as established by the EPA and the State of Tennessee and to eliminate the discharge of hazardous wastewater into surface impoundments. Project will provide required collection, treatment, and monitoring facilities based on wastewater characterizaton and treatability studies to meet effluent criteria established by regulatory agencies.

- Fire Protection Up-grade: FY 1988, $800.

  This project involves the installation of sprinkler systems, early warning systems, and improved fire fighting systems in the sections of the Y-12 plant utilized by ORNL.

Multi-site Projects

- Personnel Radiological Monitoring Laboratory Upgrade (Pantex, Y-12, Rocky Flats): FY 1988, $1,000.

  This project will upgrade equipment and facilities at Y-12, Pantex, and Rocky Flats in order to improve radiation measurement and monitoring capabilities at the three sites. At Y-12, a Personnel Radiation Monitoring Laboratory will improve capabilities for high sensitivity, low background measurements by providing shielding and air filtering. At Pantex, a Personnel Radiological Laboratory will provide a variety of equipment and facilities needed to comply with current criteria and standards for dosimetry. At Rocky Flats, a new building and equipment for improved calibration of instruments and dosimeter will be provided.

- Environmental Hazards Elimination (Kansas, Pinellas, Pantex, Rocky Flats, Y-12, LANL): FY 1988, $13,289; FY 1987, $18,300.

  This project provides for the cleanup and elimination of discharges potentially contaminated with PCB liquids inthe storm sewer system at the Kansas City Plant; the removal and replacement of all electrical systems contaminated with

PCB liquids at Kansas City, Pinellas, Pantex, Rocky Flats, Y-12, and LANL; the construction of an industrial wastewater pretreatment facility to meet Federal and local standards for discharges to the Kansas City, Missouri sanitary sewer system.

- Fire Protection Upgrading (Y-12, Pantex): FY 1988, $1,700.

  This project upgrades fire protection systems within the Y-12 and Pantex facilities.

Richland Operations (Hanford)

- N-Reactor Safety Enhancement Program: FY 1988, $28,500; FY 1987, $22,400. 1/ (This is not a line-item construction project, but in view of its significance is included in the list.)

  This project makes technical, operational and administrative improvements to enhance N-Reactor safety. These improvements include: additional operator training to improve ability to respond to unusual and unanticipated events; remote reactor shutdown capability; utilization of the simulator in training for a severe accident; additional redundancy and backup for the ECCS; increased surveillance of reactor components and systems; testing of confinement and other safety-related system hardware under accident environment conditions; installation of hydrogen mitigation system, and preventing uncontrolled discharges of contaminated water outside of confinement in the event of an accident.

1/ A $50 million Safety Enhancement Plan is currently being developed.

Questions from Senator Metzenbaum

Remedial Activities at Nuclear Facilities

Question 102: Does DOE draw funds from any other programs for remedial activities at its nuclear facilities? If so, please list the amounts dedicated for each facility in FY 1987 and requested for FY 1988.

Answer: When there is need for remedial action at a nuclear facility, the program responsible for that facility budgets for the work required.

QUESTIONS FROM SENATOR FOWLER
MAINTAINING THE ENERGY TRIAD

Question 103: You have spoken about maintaining an energy triad with the conventional fuels, nuclear and the renewables.

As I look over the proposed FY 1988 budget, I wonder how this triad can be maintained with such major cuts in solar energy and energy conservation R & D (reduced by 36% and 50% respectively.)

Answer: The "energy triad", as described in the most recent National Energy Policy Plan and in several speeches of the Secretary of Energy, refers to conservation, coal, and nuclear power. These three technology areas are crucial to developing the Nation's energy strength and security by reducing dependence on imported oil. Increasing our commitment to nuclear power, making fuller use of our vast coal reserves in an environmentally sound manner, and advancing energy conservation as an economical method of reducing energy demand are key to a secure energy future. The level of Federal funding is not always a reliable guide either to the priority accorded a technology or to its prospects for meeting its goals. In fact, the individual choices of millions of consumers operating in the marketplace have made the greatest contribution to the impressive achievements in conservation attained over the past dozen years and testify to the importance of individual actions in attaining our national goals.

The FY 1988 budget requests for conservation and renewables are similar to the levels requested in FY 1987. Although these requests are below the appropriation levels, it is our belief that they are sufficient to maintain a balanced research and development program which will address the technical issues needed to bring these technologies to the point were the private sector can judge their value. The Department's commitment to this leg of the "energy triad" is by no means diminished.

QUESTIONS FROM SENATOR FOWLER

RESCISSION

Question 104: Please explain the rescission of $7.5 million for Atlanta University's Center for Science and Technology under the budget function - Basic Energy Sciences.

Answer: The Administration proposes to rescind certain university construction projects added by the Congress in FY 1987 because these projects are not consistent with the mission and mandate of the Department of Energy's basic research program nor with the high priority research currently being conducted by the Office of Energy Research.

QUESTIONS FROM SENATOR BINGAMAN

CURRENT STATUS OF OIL INDUSTRY

Question 105: Mr. Secretary, this Committee is holding field hearings in my state in two weeks to look at the status of the domestic oil and gas industry. What do your experts tell you about the current status of the industry? What conditions am I likely to find?

Answer: The domestic oil industry is in the midst of a very difficult period. Based on our observations and inquiries, employment, drilling, production and well servicing are far below the levels of 1980 when oil prices were over $30 per barrel.

Since January, 1986, for the Nation crude oil wellhead prices have fallen 49 percent, operating rotary rigs are down by 58 percent, and seismic crew counts are 50 percent lower. In New Mexico operating rotary rigs are down 40 percent from 47 operating rigs in February, 1986, to 28 in February, 1987; in neighboring Texas the rig count has dropped 43 percent from 470 to 266 for the same period.

Seasonal conditions also impact on the exploratory and drilling sectors of the industry and there has been a slight decline in these areas since January, 1987. In short, you will find a very depressed industry when you visit New Mexico. I might add, however, that it is not clear that government intervention will improve the situation to any appreciable degree.

QUESTIONS FROM SENATOR BINGAMAN

CONCERN ABOUT GAS LINES

Question 106: Yesterday's New York Times quoted Interior Secretary Donald Hodel as saying "we will be sitting in gas lines again within the next two to five years." Are you concerned with this prediction?

Answer: While our import dependence is increasing, our ability to cope with oil supply interruptions has improved since the 1970's. In the 1970's we did not have large government strategic stocks and we relied on government price and allocation systems in the U.S. to manage oil supply disruptions. As is well known, it was the government controls that caused the gas lines.

Today, we are less vulnerable to a supply disruption with over 500 million barrels of oil in the U.S. strategic stockpile alone and with considerable stocks in other countries. In addition and importantly we have abandoned the policies that have caused gasoline lines in the past.

This Administration is concerned over increased U.S. and world dependence on potentially insecure energy suppliers. Recognizing the potential risks of a repeat of our 1970's energy experience, the President directed the Department of Energy to lead an inter-agency task force to prepare a report on energy security issues. We expect to finish the report in mid-March.

QUESTIONS FROM SENATOR BINGAMAN

PETROLEUM AND GAS RESEARCH AND DEVELOPMENT

Question 107: The U.S. dependency on foreign oil is rapidly increasing (50 percent of consumption will be from imports by 1990) and the U.S. petroleum industry is slashing its own research. Yet the entire DOE fossil energy budget for petroleum and gas research and development in fiscal year 1988 is only $13.9 million (down from $34 million in fiscal year 1987). Please tell me how the Department of Energy will sponsor the geoscience research necessary to enable the enhanced recovery of our domestic oil, gas, and oil shale resources with these limited funds.

Answer: The $34 million of the FY 1987 appropriation was for all of the Petroleum subprograms: Advanced Process Technology, Enhanced Oil Recovery, Oil Shale, as well as the Unconventional Gas Recovery Program. The major reductions between FY 1987 and the Department's FY 1988 request are in the Oil Shale, Unconventional Gas Recovery and Advanced Process Technology subprograms, and the Tar Sands element of the Enhanced Oil Recovery subprogram. Because of fiscal constraints, the fact that oil shale and tar sands technologies will not be economically viable for a number of years, and the completion of the multiwell experiment in FY 1987, emphasis was placed upon programs with the potential for near term benefits, i.e., enhanced oil recovery techniques for heavy and light oil.

The Department places a high importance on research to increase oil recovery. For this reason our FY 1988 request includes a new $5 million initiative on methods to maximize production from existing oil fields. Included in the new initiative is geoscience research to identify reservoir heterogeneities and to determine their impact on production; and to conduct fundamental studies on the interactions between the reservoir and injected fluids. Other activities include exploring novel concepts exhibiting potential for more efficient and effective recovery of oil from heavy oil formations and the light oil remaining in existing fields after applying conventional techniques. The most promising concepts arising from laboratory research will be evaluated through small scale field tests under controlled conditions. DOE will also continue to assist the oil producing states by conducting technical analysis in support of efforts to mitigate production declines.

An in-house research effort in oil shale will be continued in FY 1988 with an emphasis on systems analysis to position DOE to launch the most effective program of research possible when the need to initiate development of synthetic liquid fuels is warranted and the fiscal environment permits such a move.

Unconventional Gas Recovery efforts in FY 1988 include continuing in-house support to maintain and update the Eastern Gas Shales technical data base, in-house research on Western Tight Gas Sands reservoir and stimulation model application, and, environmental and advanced research studies.

In addition, the Administration expects to submit a FY 1988 budget amendment of $7.0 million for a Cooperative R&D Venture initiative. This program encourages industry to pool their resources to address fossil energy research important to both industry and the nation. In this program, Fossil Energy would participate only as a minority (up to 49%) partner. Oil shale research could be a candidate for this program.

QUESTION FROM SENATOR BINGAMAN

DOE LONG-TERM ENERGY POLICY

Question 108: What long-term energy policy does the Department of Energy have to prepare the United States for future energy needs, 10 to 15 years from now? What action is DOE taking to implement this plan?

Answer: The Administration's energy goal is to foster an adequate supply of energy at reasonable cost. We believe the record shows that this can be best achieved if the government allows businesses to work, eliminates counter-productive controls, and avoids expensive subsidies. Consistent with that approach the Department of Energy believes the following changes are neded:

-- Oil: The Administration is committed to a goal of 750 million barrels in the Strategic Petroleum Reserve. We support increased OCS leasing, the repeal of the Windfall Profit Tax, and the development of exploration opportunities in the ANWR and on the OCS.

-- Natural Gas Decontrol: The Administration has consistently supported comprehensive natural gas decontrol legislation; the Federal Energy Regulatory Commission has raised old gas price ceilings (Order 451).

-- Nuclear licensing reform: The Department continues to support the reform of the nuclear licensing process, and supports R&D on improved reactor design.

-- Joint government-private sector research and development in energy conservation and renewable energy: Research and development efforts by both government and industry have improved energy use efficiency, and help bring renewable resources to the marketplace.

-- Coal: The Department encourages U.S. exports of coal, and the Department is currently administering the nearly $400 million appropriated for the clean coal technology program.

Finally, the current high level energy security study being conducted by the Department of Energy will provide the framework for undertaking further action deemed necessary to meet short- and longer-term U.S. energy needs.

QUESTION FROM SENATOR BINGAMAN

RENEWABLE ENERGY BUDGET AND FOREIGN ENERGY SUPPLIES

Question 109:	What are the Department of Energy's plans for renewable energy programs in view of anticipated shortages in 3 to 5 years and our continued dependence on foreign supplies?
Answer:	The Department believes that the solar and renewable energy budget reflects a commitment to sustain a balanced effort among the renewable energy technology options in a manner which focuses expenditures on highest priority scientific and technical investigations. Successful research of the type proposed by the Department will provide the basis for private sector deployment of technology over the next several years capable of impacting the domestic energy supply mix. Our R&D efforts are not predicated on short term fluctuations in the price or availability of oil.

QUESTION FROM SENATOR BINGAMAN

FALLING OIL PRICES AND DOMESTIC SUPPLY AND NATIONAL SECURITY

Question 110:	Former Energy Secretary James Schlesinger told us last month that "the same falling oil prices that provides consumer benefits and provides a macroeconomic stimulus while easing inflation and interest rates also implies serious problems for domestic oil supply and national security." Would you agree with his assessment? What should be the government's proper response?
Answer:	At the request of the President, the Department of Energy is currently leading an inter-agency task force preparing an assessment of energy security issues, which we expect to finish in mid-March. While we realize that low oil prices have economic benefits for oil-consuming regions, they have a negative impact on the domestic oil industry -- particularly the oil producing states of Texas, Alaska, Louisiana, Oklahoma, and California. Oil companies have reduced staffs through layoffs or early retirement programs. States have lost major sources of revenue for services and education programs. Royalty payments have been reduced.

A competitive domestic oil and gas industry is important to long-term U.S. economic health and national security. We believe that steps can be taken to improve future prospects for the U.S. energy and oil industry. These include:

-- further decontrol of the natural gas market;

-- improved opportunities for domestic exploration and production; and

-- repeal of the Windfall Profits Tax and of provisions of the Fuel Use Act.

We view the government's role as (1) working to ensure an adequate and effective response to a supply interruption, (2) supporting high risk research and development of fuels and technologies, and (3) removing inappropriate barriers to efficient energy investments by the private sector.

QUESTIONS FROM SENATOR BINGAMAN

U.S. DRILLING AT $18 BARREL

Question 111: Output last year declined 833,000 barrels per day or 9 percent between February and December 1986. This decline to 8.35 million barrels brought our production rate to the lowest levels since 1977, when imports reached 48 percent. Imports now account for nearly 40 percent of domestic consumption. According to projections for this year, production will fall an additional 300,000 to 500,000 barrels, to about 17 percent below the peak production of 9.6 million barrels a day reached in 1970.

Do you believe $18 a barrel oil is sufficient to ensure continued drilling activity at a level necessary to ensure a competitive domestic industry and help us reduce our continued dependence?

Answer: At $18 per barrel for oil, substantial U.S. production of known sources will continue. Lifting costs are below $18 per barrel for many properties. However, $18 will not support a heavy exploration and development investment program barring cost saving measures including technological changes. At $18 per barrel, we may see a decline in domestic production, matching the natural decline rate for presently producing properties. It is not clear, however, that government intervention would improve national security.

QUESTIONS FROM SENATOR BINGAMAN

COAL RESEARCH

Question 112:	Inasmuch as the Deputy Secretary, Bill Martin, has stated that coal is a critical element in our energy future, what is the Department of Energy doing about enhancing coal science in this country, and particularly, how are the western states being involved?
Answer:	Numerous elements of DOE's Fossil Energy Program support research in coal science, including efforts in the western states. Examples of some of the more significant of these activities are highlighted below.

- In FY 1986, the University Coal Research Program supported 20 projects in coal science, with total obligations of $2.2 million. Eleven of these projects, with total obligations of $1.3 million, were at western universities (i.e., universities west of the Mississippi). Comparable levels of support are estimated for FY 1987. In FY 1988, it is estimated that approximately $1.5 million will be provided for about 13 projects at western universities.

- Under Coal Liquefaction, the Advanced Research Program supported 14 projects in coal science in FY 1986, with total obligations of $2.1 million. Six of these projects, with total obligations of $0.8 million, were located west of the Mississippi. Support levels in FY 1987 are estimated to be slightly lower. In FY 1988, support is estimated to be about $1.4 million for 8 to 9 projects, with 4 projects in western states receiving about $0.6 million.

- The Advanced Research portion of the Surface Coal Gasification Program supported 16 projects in FY 1986, all in coal science, with obligations of $4 million. Eight of these projects were located in western states with obligations of $3.4 million. In FY 1987, 15 projects, totalling $2.8 million are anticipated; these include seven projects, totalling $1.2 million in western states. In FY 1988, we anticipated supporting four projects totalling $640,000. Three of these projects, totalling $380,000, will be performed in western states.

- Fundamental coal combustion science projects are carried out in the Direct Utilization subprogram of the Advanced Research and Technology Development program. In FY 1986, 68 projects were carried out in this subprogram, involving total funding obligations of $11.3 million. Of this, 24 projects with total obligations of $3.9 million were conducted in states west of the Mississippi River. In FY 1987, obligations of $10 million are being planned, of which $3.3 million will be spend on a similar number of projects conducted in states west of the Mississippi River. In FY 1988, the request of $9.0 million is slightly lower as a few multi-year contracts are drawing to a close. Approximately $2,739,000 will be spent on approximately 19 projects in states west of the Mississippi River.

QUESTION FROM SENATOR BINGAMAN

COMBUSTION RESEARCH FACILITY

Question 113: Sandia National Laboratories has a Combustion Research Facility at their Livermore site which has used new laser diagnostic methods and computer modeling to contribute to the revolution of combustion science. This laboratory has been a focal point for this research. One invention to result from this work was RAPRENOx, a process for eliminating an important class of noxious pollutants, the nitrogen oxides (NOx) from exhaust gases. The process was discovered while carrying out fundamental chemistry studies for DOE's Office of Basic Energy Sciences.

This kind of combustion research would be strengthened by expanding and updating the combustion research facility. The Congress put $300,000 in the DOE budget last year to begin this work. An additional $21.4 million is needed during fiscal year 1988 to fiscal year 1990 (4.5 million in fiscal year 1988) in order to carry out the project to completion. No funding has been provided in the President's budget.

Answer: In view of the President's commitment to reduce deficit spending, it was necessary to limit our construction request to only the most urgent needs.

POST-HEARING QUESTIONS AND ANSWERS
(Minority Questions)

Relating to the

FEBRUARY 18, 1987 HEARING

Before the

COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

WITNESS: SECRETARY HERRINGTON

QUESTIONS FROM SENATOR MCCLURE

FY 1987 BUDGET ASSUMPTIONS

Questions 1 & 2: Would you provide for the record a fiscal year 1987 baseline table by Bureau indicating for each appropriations account --

a. the budget authority and estimated outlays as appropriated by the Congress;

b. any anticipated supplemental appropriations; and

c. any proposed rescissions or deferrals.

For each rescission, deferral or supplemental appropriation indicated in question 1, would you provide for the record its justification and status?

Answer: The FY 1988 budget included a FY 1987 no-funds supplemental request for increased pay costs of $469,000 for Energy Information Administration and $89,000 for Emergency Preparedness. These monies are to be funded by the transfer of Unobligated Balances from Fossil Energy Research and Development.

FY 1987 rescissions included in the President's Budget must receive Congressional action prior to March 15, 1987 or will be returned to the programs for which they were appropriated.

The balance of the information requested is reflected on a table to be inserted in the record. [The information follows].

DEPARTMENT OF ENERGY

(Dollars in Thousands)

Account Title	FY 1987 Appropriation	Proposed Res/Def	FY 1987 Revised
Energy Supply R&D	$ 1,347 048	$ -81,800	$ 1,265,248
Uranium Supply and Enrichment Activities	-76,000 B/	---	-76,000
General Science and Research Activities	708,400	---	708,400
Atomic Energy Defense Activities	7,477,750	---	7,477,750
Departmental Administration	143,611 B/	--- A/	143,611
Power Marketing Administrations:			
Alaska Power Administration	2,881	--- A/	2,881
Bonneville Power Administration	---	---	---
Southeastern Power O&M	19,647	---	19,647
Southwestern Power O&M	25,337	--- A/	25,337
Western Area Power O&M	240,309	--- A/	240,309
WAPA Emergency Fund	225	---	225
Total, Power Marketing Administrations	288,399	---	288,399
FERC Salaries and Expenses	20,325 B/	---	20,325
Nuclear Waste Disposal Fund	499,000	---	499,000
Geothermal Resources Development Fund	72	---	72
Fossil Energy Research and Development	295,866	-44,464	251,402
Naval Petroleum and Oil Shale Reserves	122,177	---	122,177
Energy Conservation	280,129 B/	-130,450	149,679
Energy Regulation	23,400	---	23,400
Emergency Preparedness	6,044	---	6,044
Strategic Petroleum Reserve	147,433	---	147,433
Energy Information Administration	60,301	---	60,301
Payment to States	705	---	705
Subtotal, DOE	11,344,660	-256,714	11,087,946
Receipts:			
Naval Petroleum Reserve	-608,339	---	-608,339
Power Marketing Adminstrations:			
Alaska	8,262	---	8,262
Bonneville	-120,400	---	-120,400
Southeastern	-114,000	---	-114,000
Southwestern	-92,490	---	-92,490
Western Area	-381,283	---	-381,283
Total, Power Marketing Administrations	-716,435	---	-716,435
Nuclear Waste Fund	-574,100	---	-574,100
Other	-14,400	---	-14,400
Total, Receipts	-1,913,274	---	-1,913,274
Total, DOE Less Receipts	$ 9,431,386	$ -256,714	$ 9,174,672

A/ Propose deferral of prior year unobligated balances does not affect FY 1987 budget authority.

B/ Amounts as reflected in the FY 1987 appropriation. The President's FY 1988 budget includes more current estimates for these activities.

Department of Energy
List of FY 1987 Rescissions/Deferrals
(Dollars in Millions)

Interior and Related Agencies

Project Description	Amount
RESCISSIONS:	
Energy Conservation:	
Transportation R&D	
-- Gas Turbine	$ 2,500
-- Electric Batteries	1,000
Industrial Energy Conservation	
-- INEL Industrial Waste Energy	2,100
-- Steel Industry, Thin Strip	1,400
-- Steel Initiative	1,000
Facilities	
-- Tufts University Research Building	10,000
State and Local Assistance	
-- Weatherization Assistance Program	110,250
-- Schools and Hospitals	2,200
Subtotal, Energy Conservation	$130,450
Less Unapplied Indefinite Appropriation	-46,517
Total, Energy Conservation	$ 83,933
Fossil Energy R&D:	
Control Technology and Coal Preparation	
-- Glo-Ken Technology Testing	$ 1,100
-- Fixed Beds Desulfurization	580
-- Alkali and Particulate Control	1,075
-- Turbine Combine Cycle Particulate and SUlfur Removal	750
-- Gas Stream H2S Control	700
-- Ames Laboratory	1,140
-- Southern Illinois University Coal Preparatory Research	1,250
Coal Liquefaction	
-- Wilsonville Pilot Plant	4,150
-- LaPorte Pilot Plant	2,300
Fuel Cells	
-- 25Kw Organic - Cooled Technology (Englehard)	1,500
-- 7.5 Mw System (Westinghouse)	7,600
-- International Fuel Cells (IFC) - 11 MW Technology	2,000
-- Water-Cooled On-Site Program (ICF)	2,000
Underground Coal Gasification	
-- Gasification Technology Development, Field Test at Hanna, WY	1,000
Magnetohydrodynamics	10,319
University of North Dakota Energy Research Center Funding	
-- Control Technology and Coal Preparation	800
-- Advanced Research and Technology Development	600
-- Coal Liquefaction	1,000
-- Combustion Systems	300
-- Heat Engines	100
-- Surface Coal Gasification	1,400
Western Research Institute Funding	
-- Underground Coal Gasification	600
-- Advanced Process Technology	100
-- Enhanced Oil Recovery	200
-- Oil Shale	1,400
Total, Fossil Energy R&D	$ 44,464
Total, Interior and Related Agencies Rescissions	$128,397

Department of Energy
List of FY 1987 Rescissions/Deferrals
(Dollars in Millions)

Energy and Water Development

Project Description	Amount
RESCISSIONS:	
Energy Supply R&D:	
Solar & Renewable Energy R&D	
Photovoltaics	
-- Photovoltaic Utility Scale Application (PVUSA)	$ 6,000
Biofuels	
-- Conversion of Waste to Methane	1,400
Ocean	
-- Pacific International Center for High Technology Research (PICHTR)	2,000
Electric Energy Systems	
-- Deep Sea Power Cable, Hawaii	3,700
Total, Solar & Renewable Energy R&D	$13,100
Basic Energy Sciences	
-- Center for New Industrial Materials, Iowa State University	$ 6,000
-- Atlanta University, Center for Science & Technology	7,500
-- Energy Research Complex, University of South Carolina	16,300
-- Center for Science & Engineering, Arizona State University	5,000
-- Center for Nuclear Imaging Research, University of Alabama	12,300
-- St. Christophers Hospital for Children, Philadelphia, PA	14,800
Total, Basic Energy Sciences	$61,900
University Research Support	
-- Indiana University	$ 3,800
Biological and Environmental Research	
-- Institute of Nuclear Medicine in New Jersey	$ 3,000
Total, Energy Supply R&D Rescissions	$81,800
DEFERRALS:	
Departmental Administration - Cost of Work for Others	$24,182
Alaska Power Administration	165
Southwestern Power Administration	13,660
Western Area Power Administration	4,485
Total, Deferrals	$42,492

DEPARTMENT OF ENERGY
FY 1987 RESCISSIONS
(dollars In thousands)

Appropriation: Energy Conservation

Program/Decision Unit	Proposed Rescission	FY 1987 Appropriation
o Transportation Energy Conservation............	$ 3,500	$ 11,900
- Vehicle Propulsion R&D - (Gas Turbine)	$ 2,500	$ 10,000

The proposed rescission eliminates further subsidies for Automotive Gas Turbine development at Ford and General Motors. Funds pass through NASA to Allison Pontiac and Garrett/Ford. Funds not being proposed for rescission continue the work through termination of the program which is planned for March 1987.

- Electric and Hybrid Vehicle R&D - (Electric Battery Testing, INEL)	$ 1,000	$ 1,900

The proposed rescission eliminates electric battery testing work at Idaho National Engineering Laboratory (INEL) which should instead be undertaken by industry. Funds go to INEL and continue the program until termination in March 1987.

o Industrial Energy Conservation................	$ 4,500	$ 11,356
- Waste Energy Reduction - (National Laboratory and Analytical Support)	$ 2,100	$ 4,556

The proposed rescission eliminates excessive administrative funding for Industrial Waste energy projects at Idaho National Engineering Laboratories. Funds pass through INEL to EG&G Idaho, Inc.

- Industrial Process Efficiency - (Thin Strip)	$ 1,400	$ 4,800

The proposed rescission will eliminate unnecessary funding for steel industry productivity subsidies in thin-strip casting. Industry should contribute a larger share for this effort. The contractors are U.S. Steel/Bethlehem Steel.

- Industrial Process Efficiency - (Steel Initiative)	$ 1,000	$ 2,000

A rescission for the "Steel Initiative" is being proposed to reduce this subsidy to the steel industry. Funds would go to Argonne National Laboratory, other national labs, universities and private industry.

o Facilities....................................	$ 10,000	$ 10,000
- Tufts University Research Building	$ 10,000	$ 10,000

The funds are being rescinded since Tufts University has had no history of Energy Conservation work for the Department. Funds pass through the Chicago Operations Office to Tufts University.

DEPARTMENT OF ENERGY
FY 1987 RESCISSIONS
(dollars In thousands)

Appropriation: Energy Conservation

Program/Decision Unit	Proposed Rescission	FY 1987 Appropriation
o State and Local Assistance Program..........	$ 112,450	$ 112,450
o Less unapplied indefinite appropriation.....	-46,517	
	$ 65,933	
- Weatherization Assistance Program	$ 64,615	$ 110,200

The Weatherization funding is rescinded since this program will receive $96,743,000 in petroleum overcharge monies. All states receive these grant funds. Over the last several years the states have received over $3 billion in funding from the petroleum overcharge fund.

- Schools and Hospital	$ 1,318	$ 2,250

The Schools and Hospitals funding is proposed for rescission because this program will receive $23,837,000 in petroleum overcharge monies. All eligible schools and hospitals receive these grant funds.

DEPARTMENT OF ENERGY
FY 1987 RESCISSIONS
(dollars in thousands)

Appropriation: Fossil Energy R&D

Program/Decision Unit	Proposed Rescission	FY 1987 Appropriation
o Control Technology and Coal Preparation.......	$ 6,595	$ 6,595
- Flue Gas Cleanup - (Glo-Klen Testing)	$ 1,100	$ 1,100

A rescission is proposed for funds for Glo-Klen Technology large-scale boiler testing of a proprietary process or product which has not conclusively demonstrated its technological merit or cost effectiveness to date.

- Gas Stream Cleanup - (Gasification)	$ 3,105	$ 3,105
Fixed Beds Desulfurization	580	580
Alkali & Particulate Control	1,075	1,075
Turbine Combined Cycle Particulate and Sulfur Removal	750	750
Gas Stream H_2S Control	700	700

The Department's FY 1987 budget request for Gas Stream Cleanup provided adequate funding for cleanup systems R&D. The appropriation of additional amounts for expanding gasification R&D efforts cannot be justified given current budget deficits and are proposed for rescission.

- Coal Preparation - (Ames Lab)	$ 1,140	$ 1,140

Rescission is proposed for Ames Lab because the Coal Preparation program is balanced in FY 1987 without the additional funds. The Department is concerned with regard to the value of directing funds to a specific institution without competition.

- Coal Preparation - (Southern Illinois Univ)	$ 1,250	$ 1,250

Rescission is proposed for Southern Illinois University research because the Coal Preparation program is balanced in FY 1987 without the additional funds. The Department is concerned with regard to the value of directing funds to a specific institution without competition.

o Coal Liquefaction.............................	$ 6,450	$ 9,300
- Direct Liquefaction - (Wilsonville)	$ 4,150	$ 7,000

Rescission of funding for Wilsonville pilot plant is proposed because the Department believes that further testing and development at the pilot plant stage is the responsibility of the private sector. The facility has already provided industry with sufficient data to permit scaleup by the private sector. The amount not proposed for rescission permits continued operation of the facility into March 1987.

DEPARTMENT OF ENERGY
FY 1987 RESCISSIONS
(dollars in thousands)

Appropriation: Fossil Energy R&D

Program/Decision Unit	Proposed Rescission	FY 1987 Appropriation
o Coal Liquefaction (continued)		
- Indirect Liquefaction - (LaPorte)	$ 2,300	$ 2,300

Rescission of funding for the LaPorte pilot plant is proposed because the Department believes that continued government support at the PDU for the liquid phase methanol process research is not justified in light of fiscal constraints. In addition, the Department believes that industry is now in the position to make decisions regarding additional research requirements for this process.

Program/Decision Unit	Proposed Rescission	FY 1987 Appropriation
o Fuel Cells	$ 13,100	$ 15,500
- Phosphoric Acid System Development		
7.5 MW System (Westinghouse)	7,600	10,000
25 kw Organic-cooler Technology	1,500	1,500
IFC 11 MW Technology	2,000	2,000
IFC Water-cooled On-site Program	2,000	2,000

Given the previous substantial Federal investment, maturity of the Phosphoric Acid technology and private sector activity in commercialization, the Department does not believe that further Federal support can be justified and is proposing a rescission of those funds. Amounts not proposed for rescission provide for continued operation into March 1987.

Program/Decision Unit	Proposed Rescission	FY 1987 Appropriation
o Underground Coal Gasification	$ 1,000	$ 1,000
- Gasification Technology Development - (Hanna, Wyoming Test)	$ 1,000	$ 1,000

The proposed rescission is the Department's portion of a cost-shared field test at Hanna, Wyoming. The Department believes that Underground Coal Gasification technology has progressed to a point where industry should complete the development of the potential commercial application without further federal financial participation. Additionally, prior year appropriations are available to complete control reaction injection process (CRIP) testing.

Program/Decision Unit	Proposed Rescission	FY 1987 Appropriation
o Magnetohydrodynamics	$ 10,319	$ 26,500

Given current fiscal constraints, the Department cannot afford the cost of continuing the long-term development of magnetohydrodynamics (MHD) research and is proposing a rescission of those amounts not required for an orderly completion of current development efforts.

DEPARTMENT OF ENERGY
FY 1987 RESCISSIONS
(dollars in thousands)

Appropriation: Fossil Energy R&D

Program/Decision Unit	Proposed Rescission	FY 1987 Appropriation
o University of North Dakota Energy Research Center (UNDERC)................	$ 4,700	$ 5,302

Rescission of UNDERC funding is proposed since the Department believes that adequate funds are available within the FY 1987 appropriated amounts to conduct coal R&D, including R&D for low rank coals, without the funds specifically proposed for UNDERC. The proposed funding to UNDERC precludes competition of research activities between the national labs, universities and industry. Amounts not proposed for rescission provide for continued operation into March 1987.

Program/Decision Unit	Proposed Rescission	FY 1987 Appropriation
o Western Research Institute (WRI)...............	$ 2,300	$ 5,751

Rescission of WRI funding is proposed since adequate funds are available in the FY 1987 appropriated amounts for the conduct of petroleum-related R&D without amounts specifically related to WRI. The Department believes that continuation of the cooperative agreement with WRI is not warranted given the benefits that could be derived from competing research among various performers such as national labs, universities and industry. Amounts not proposed for rescission provide for continued operation into March 1987.

DEPARTMENT OF ENERGY
FY 1987 RESCISSIONS
(dollars In thousands)

Appropriation: Energy Supply Research and Development

Program/Decision Unit	Proposed Rescission	FY 1987 Appropriation
o Solar Energy Programs........................	$ 9,400	$ 9,400
- Photovoltaics - (PVUSA)	$ 6,000	$ 6,000

The proposed rescission is for the Photovoltaic Utility Scale Application (PVUSA) project, a cooperative project between Pacific Gas and Electric Company and DOE to test various technologies being researched by both DOE and industry, for efficiency, longevity and cost effectiveness and essentially demonstrates previously developed technology which could reasonable be expected to be done by private industry. The project also carries a future mortgage of $20M to DOE over the next three years.

- Biofuels - (Waste to Methane conversion)	$ 1,400	$ 1,400

Proposed rescission is for a 50/50 cost-shared project with the Gas Research Institute to biologically convert organic matter to methane at an existing experimental test unit. This project demonstates existing technology but does not add to the R&D technology base.

- Ocean - (PITCHR)	$ 2,000	$ 2,000

The proposed rescission is for work at the Pacific International Center for High Technology Research (PICHTR) on Ocean Thermal Energy Conversion (OTEC). Specifically this supports internationally sponsored projects intended to be centered at the University of Hawaii.

o Electric Energy Systems........................	$ 3,700	$ 3,700
- Hawaiian Deep Sea Cable Project	$ 3,700	$ 3,700

Deep sea power cable is located in Hawaii. The utility demonstration has no nation-wide applicability as has been the focus of most R&D activities. Interest is basically limited to Hawaii.

DEPARTMENT OF ENERGY
FY 1987 RESCISSIONS
(dollars in thousands)

Appropriation: Energy Supply Research and Development

Program/Decision Unit	Proposed Rescission	FY 1987 Appropriation
o Basic Energy Sciences........................	$ 61,900	$ 61,900
- Center for New Industrial Materials, Iowa State University	$ 6,000	$ 6,000
- Center for Science & Technology, Atlanta University	$ 7,500	$ 7,500
- Energy Research Complex, University of South Carolina	$ 16,300	$ 16,300
- Center for Science & Engineering, Arizona State University	$ 5,000	$ 5,000
- Center for Nuclear Imaging Research, University of Alabama	$ 12,300	$ 12,300
- St. Christophers Hospital for Children, Philadelphia, Pennsylvania	$ 14,800	$ 14,800

Funds for the construction of six university buildings are proposed for rescission because the projects are not consistent with the high priority research currently being conducted by the Office of Energy Research.

o University Research Support....................	$ 3,800	$ 3,800
- Indiana University	$ 3,800	$ 3,800

Funds for the construction of one university building is proposed for rescission because the project is not consistent with the high priority research currently being conducted by the Office of Energy Research.

o Biological and Environmental Research.........	$ 3,000	$ 3,000
- Institute of Nuclear Medicine in New Jersey	$ 3,000	$ 3,000

Funds for the construction of one university building is proposed for rescission because the project is not consistent with the high priority research currently being conducted by the Office of Energy Research.

DEPARTMENT OF ENERGY
FY 1987 DEFERRALS

(Dollars In Thousands)

Appropriation: Departmental Administration

Program/Decision Unit	Proposed Deferral	FY 1987 Appropriation
Cost of Work for Others	$24,182	$115,050

The proposed deferral is comprised of FY 1986 unobligated balances. These balances were in the Cost of Work for Others Program and are due to anticipated orders not being realized. The proposed deferral will be used to finance the budget authority in our FY 1988 request.

DEPARTMENT OF ENERGY
FY 1987 DEFERRALS

(Dollars In Thousands)

Appropriation: Alaska Power Administration

Program/Decision Unit	Proposed Deferral	FY 1987 Appropriation
Alaska Power Administration	$ 165	$2,881

In 1986, appropriated funds were in excess of the levels needed for procurements because contract costs were lower than anticipated. The funds will be deferred until 1988.

DEPARTMENT OF ENERGY
FY 1987 DEFERRALS

(Dollars In Thousands)

Appropriation: Southwestern Power Administration

Program/Decision Unit	Proposed Deferral	FY 1987 Appropriation
Southwestern Power Administration	$13,660	$25,337

In 1986, funds were in excess of amounts required to purchase power and pay non-Federal utilities to deliver it. The funds will be deferred until 1988.

DEPARTMENT OF ENERGY
FY 1987 DEFERRALS

(Dollars In Thousands)

Appropriation: Western Area Power Administration

Program/Decision Unit	Proposed Deferral	FY 1987 Appropriation
Western Area Power Administration	$4,485	$240,309

In 1986, funds were in excess of amounts required to purchase power. The funds will be deferred until 1988.

QUESTIONS FROM SENATOR MCCLURE

FY 1988 BUDGET REQUEST

Question 3: Would you provide for the record a fiscal year 1988 appropriations account baseline table (commonly referred to as the Holifield table), indicating the request (a) made by each program of the Assistant Secretary, (b) made by the Assistant Secretary of the Secretary, (c) made by the Department to OMB, and (d) included in the President's proposed budget?

Answer: We will be glad to submit the "Holifield" table for the record [the information follows].

DEPARTMENT OF ENERGY

BUDGET CONTROL TABLE

REPORT DATE 1/16/87

FY 1988

History of the FY 1988 Congressional Budget Request

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DEPARTMENT OF ENERGY
FY 1988 CONTROL TABLE
(DOLLARS IN THOUSANDS)

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
999100	SUMMARY BY APPROPRIATION				
999115	ENERGY SUPPLY R&D	1.254.131	2.237.020	2.013.134	1.914.710
999125	URANIUM SUPPLY AND ENRICHMENT ACTIVITIES	1.210.400	——	207	1.070.000
999110	GENERAL SCIENCE AND RESEARCH ACTIVITIES	719.517	886.398	842.634	814.498
999105	ATOMIC ENERGY DEFENSE ACTIVITIES	7.401.052	9.390.220	8.220.192	8.050.000
999225	DEPARTMENTAL ADMINISTRATION	139.509	226.649	209.584	166.133
999164	POWER MARKETING ADMINISTRATIONS:				
999165	ALASKA POWER ADMINISTRATION	2.801	3.191	3.300	3.026
999170	BONNEVILLE POWER ADMINISTRATION	327.659	325.200	300.800	205.800
999175	SOUTHEASTERN POWER O&M	19.647	27.788	27.490	27.400
999180	SOUTHEASTERN CONT. FUND	——	500	——	——
999185	SOUTHWESTERN POWER O&M	25.337	38.041	30.733	16.848
999190	SOUTHWESTERN POWER CONT. FUND	——	——	——	——
999195	WESTERN AREA POWER O&M	240.389	351.000	302.788	295.315
999200	WAPA EMERGENCY FUND	225	——	——	——
999205	COLORADO RIVER BASIN	——	——	——	——
999206	TOTAL, POWER MARKETING ADMINISTRATIONS	616.058	745.720	665.111	548.389
999155	FERC SALARIES AND EXPENSES	-3.465	-4.183	3.409	-900
999136	NUCLEAR WASTE DISPOSAL FUND	499.000	947.770	726.201	500.000
999160	GEOTHERMAL RESOURCES DEVELOPMENT FUND	72	72	76	72
999161	SPECIAL FOREIGN CURRENCY	——	——	——	——
999137	ALTERNATIVE FUELS PRODUCTION	——	——	——	——
999162	CLEAN COAL TECHNOLOGY	——	——	——	50.000
999120	FOSSIL ENERGY RESEARCH AND DEVELOPMENT	251.402	315.035	212.233	168.900
999130	NAVAL PETROLEUM AND OIL SHALE RESERVES	122.177	207.639	159.985	159.700
999135	ENERGY CONSERVATION	149.679	160.258	101.712	86.098
999150	ENERGY REGULATION	23.400	21.680	22.437	21.680
999149	EMERGENCY PREPAREDNESS	6.044	6.956	6.431	6.206
999140	STRATEGIC PETROLEUM RESERVE	147.433	164.069	638.792	270.181
999145	ENERGY INFORMATION ADMINISTRATION	60.301	63.002	62.929	61.599
999147	PAYMENTS TO STATES	705	570	727	727
999411	FOREIGN TRAVEL REDUCTION	——	——	——	——
999153	UNALLOCATED OMB TARGET	——	——	——	——
999412	PUBLIC & LEG. AFFAIRS	——	——	——	——
999050	SUBTOTAL DOE	12.670.215	15.378.703	13.093.754	13.087.985

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DEPARTMENT OF ENERGY
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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
999488	EFFECT OF PRIVATIZATION				
999490	ALASKA POWER	—	—	—	—
999492	BONNEVILLE POWER	—	—	—	—
999494	SOUTHEASTERN POWER	—	-27,788	-27,490	—
999496	SOUTHWESTERN POWER	—	-38,041	-30,733	—
999498	WESTERN AREA POWER	—	—	—	—
999500	COLORADO RIVER BASIN	—	—	—	—
999502	NAVAL PETROLEUM & OIL SHALE RESERVES	—	—	-159,735	—
999852	TOTAL DOE	12,678,215	15,312,870	13,675,796	13,887,985

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
600000	RECEIPTS				
600002	URANIUM ENRICHMENT	-1,286,400	—	—	-1,301,000
600003	NAVAL PETROLEUM RESERVE	-608,339	-723,167	-705,167	-699,906
600004	POWER MARKETING				
600005	Power Marketing	—	-699,431	—	—
600006	Alaska	-8,262	—	-9,302	-8,469
600007	Bonneville	-120,400	—	-149,100	-123,400
600008	Southeastern	-114,000	—	-134,000	-120,789
600010	Southwestern	-92,490	—	-100,300	-88,906
600011	Western area	-381,283	—	-343,145	-348,545
600012	Total, Power Marketing	-716,435	-699,431	-736,047	-690,109
600016	NUCLEAR WASTE FUND - 1MIL FEE	-434,600	-514,300	-497,200	-481,300
600014	NUCLEAR WASTE FUND - SNF	-6,000	—	-23,500	-31,200
600015	NUCLEAR WASTE FUND - DEFENSE	—	—	-55,000	—
600018	NWF - INTEREST REALIZED	-133,500	-126,000	-119,900	-136,300
600025	OTHER	-14,400	-6,600	-6,600	-6,600
600030	TOTAL RECEIPTS	-3,199,674	-2,069,498	-2,143,414	-3,346,415
600035	TOTAL DOE LESS RECEIPTS	9,478,541	13,243,176	11,532,382	10,541,570
600036	EFFECT OF PRIVATIZATION RECEIPTS:				
600037	NAVAL PETROLEUM RESERVE	—	723,167	705,167	—
600038	POWER MARKETING ADMINISTRATION	—	209,168	234,500	—
600039	TOTAL, DOE	9,478,541	14,175,511	12,472,049	10,541,570
600070	ADVANCES FOR COOPERATIVE WORK				
600071	ADVANCES FOR COOPERATIVE WORK	149,882	84,639	154,825	138,200
600073	PROPRIETARY RECEIPTS FROM THE PUBLIC	-149,882	-84,639	-154,825	-138,200
600074	TOTAL, ADVANCES FOR COOPERATIVE WORK	—	—	—	—

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DEPARTMENT OF ENERGY
FY 1988 CONTROL TABLE
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A/B CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
992000	ENERGY SUPPLY R&D				
70010	SOLAR ENERGY				
70013	SOLAR BUILDINGS ENERGY SYSTEMS				
70014	OPERATING EXPENSES..............................	5,920	5,250	5,250	5,250
70015	PLANT AND CAPITAL EQUIPMENT......................	——	150	150	150
70016	TOTAL, SOLAR BUILDING ENERGY SYSTEMS................	5,920	5,400	5,400	5,400
70049	PHOTOVOLTAIC ENERGY SYSTEMS				
70050	OPERATING EXPENSES..............................	39,371	24,000	24,000	20,100
70051	PLANT AND CAPITAL EQUIPMENT......................	1,000	800	878	300
70052	TOTAL, PHOTOVOLTAIC ENERGY SYSTEMS.................	40,371	24,800	24,878	20,400
70089	SOLAR THERMAL ENERGY SYSTEMS				
70090	OPERATING EXPENSES..............................	22,060	18,000	17,140	14,000
70091	PLANT AND CAPITAL EQUIPMENT......................	——	——	80	80
70092	TOTAL, SOLAR THERMAL ENERGY SYSTEMS................	22,060	18,000	17,220	14,080
70099	BIOFUELS ENERGY SYSTEMS				
70100	OPERATING EXPENSES..............................	23,450	13,585	11,155	10,655
70101	PLANT AND CAPITAL EQUIPMENT......................	600	415	415	——
70102	TOTAL, BIOFUELS ENERGY SYSTEMS.....................	24,050	14,000	11,570	10,655
70139	WIND ENERGY SYSTEMS				
70140	OPERATING EXPENSES..............................	11,986	12,640	8,140	8,140
70141	PLANT AND CAPITAL EQUIPMENT......................	4,670	400	400	400
70142	TOTAL, WIND ENERGY SYSTEMS.........................	16,656	13,040	8,540	8,540
70149	OCEAN ENERGY SYSTEMS				
70150	OPERATING EXPENSES..............................	4,474	3,000	3,000	3,000
70151	PLANT AND CAPITAL EQUIPMENT......................	——	——	——	——
70152	TOTAL, OCEAN ENERGY SYSTEMS........................	4,474	3,000	3,000	3,000
70259	INTERNATIONAL SOLAR ENERGY PROGRAM				
70260	OPERATING EXPENSES..............................	750	523	523	523
70261	PLANT AND CAPITAL EQUIPMENT......................	——	——	——	——
70262	TOTAL, INTERNATIONAL SOLAR ENERGY PROGRAM..........	750	523	523	523

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
70269	SOLAR TECHNOLOGY TRANSFER				
70270	OPERATING EXPENSES..............................	2,450	2,090	2,090	2,090
70271	PLANT AND CAPITAL EQUIPMENT........................	50	——	——	——
70272	TOTAL, SOLAR TECHNOLOGY TRANSFER..................	2,500	2,090	2,090	2,090
70279	SOLAR ENERGY RESEARCH INSTITUTE				
70280	OPERATING EXPENSES..............................	——	——	——	——
70281	PLANT AND CAPITAL EQUIPMENT........................	545	1,977	1,180	620
70282	TOTAL, SOLAR ENERGY RESEARCH INSTITUTE.............	545	1,977	1,180	620
70283	PROGRAM SUPPORT....................................	690	1,337	1,337	937
70285	RESOURCE ASSESSMENT................................				
70286	OPERATING EXPENSES..............................	600	950	700	700
70287	PLANT AND CAPITAL EQUIPMENT........................	——	50	28	28
70288	TOTAL, RESOURCE ASSESSMENT.........................	600	1,000	728	728
70290	PROGRAM DIRECTION - OTHER SOLAR ENERGY.............	4,100	4,830	4,224	4,194
70308	SUBTOTAL, SOLAR ENERGY.............................	123,532	90,005	80,698	71,175
70309	COOPERATIVE VENTURE AND POOLS......................	——	5,000	5,000	5,000
70313	GEOTHERMAL				
70314	OPERATING EXPENSES..............................	20,830	21,630	19,935	15,935
70315	PLANT AND CAPITAL EQUIPMENT........................	——	——	26	——
70316	TOTAL, GEOTHERMAL..................................	20,830	21,630	19,961	15,935
70317	HYDROPOWER				
70318	OPERATING EXPENSES..............................	450	63	——	——
70319	PLANT AND CAPITAL EQUIPMENT........................	——	——	——	——
70320	TOTAL, HYDROPOWER..................................	450	63	——	——
70321	ELECTRIC ENERGY SYSTEMS				
70322	OPERATING EXPENSES..............................	11,276	10,500	7,600	6,500
70323	PLANT AND CAPITAL EQUIPMENT........................	——	——	——	——
70324	TOTAL, ELECTRIC ENERGY SYSTEMS.....................	11,276	10,500	7,600	6,500
70329	ENERGY STORAGE SYSTEMS				
70330	OPERATING EXPENSES..............................	16,589	10,400	10,400	7,474
70331	PLANT AND CAPITAL EQUIPMENT........................	——	——	26	26
70332	TOTAL, ENERGY STORAGE SYSTEMS......................	16,589	10,400	10,426	7,500

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
40007	NUCLEAR ENERGY R&D				
40008	OPERATING EXPENSES..................................	—	—	—	—
40009	PLANT AND CAPITAL EQUIPMENT.........................	—	—	—	—
40010	TOTAL, NUCLEAR ENERGY R&D............................	—	—	—	—
40014	LIGHT WATER REACTOR				
40015	OPERATING EXPENSES..................................	33.976	49.000	40.000	34.000
40016	PLANT AND CAPITAL EQUIPMENT.........................	—	—	—	—
40017	TOTAL, LIGHT WATER REACTOR...........................	33.976	49.000	40.000	34.000
40020	ADVANCED REACTOR R&D				
40021	OPERATING EXPENSES..................................	72.968	94.030	73.400	67.170
40022	PLANT AND CAPITAL EQUIPMENT.........................	2.500	4.850	5.300	3.500
40023	TOTAL, ADVANCED REACTOR R&D..........................	75.468	[illegible]	78.700	70.670
40026	FACILITIES				
40027	OPERATING EXPENSES..................................	121.200	108.400	91.200	91.200
40028	PLANT AND CAPITAL EQUIPMENT.........................	6.600	12.400	11.800	11.800
40029	TOTAL, FACILITIES....................................	127.800	120.800	103.000	103.000
40032	WATER COOLED BREEDER				
40033	OPERATING EXPENSES..................................	13.800	—	—	—
40034	PLANT AND CAPITAL EQUIPMENT.........................	—	—	—	—
40035	TOTAL, WATER COOLED BREEDER..........................	13.800	—	—	—
40070	PROGRAM DIRECTION				
40071	OPERATING EXPENSES..................................	7.550	9.000	8.500	8.500
40072	PLANT AND CAPITAL EQUIPMENT.........................	—	—	—	—
40073	TOTAL, PROGRAM DIRECTION.............................	7.550	9.000	8.500	8.500
40055	ADVANCED NUCLEAR SYSTEMS				
40056	OPERATING EXPENSES..................................	17.600	25.250	20.800	20.800
40059	PLANT AND CAPITAL EQUIPMENT.........................	3.000	1.450	1.200	1.200
40062	TOTAL, ADVANCED NUCLEAR SYSTEMS......................	20.600	26.700	22.000	22.000

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
40074	CONVERTER REACTOR SYSTEMS				
40075	OPERATING EXPENSES..............................	—	—	—	—
40076	PLANT AND CAPITAL EQUIPMENT.......................	—	—	—	—
40077	TOTAL, CONVERTER REACTOR SYSTEMS.....................	—	—	—	—
40079	BREEDER REACTOR SYSTEMS				
40080	OPERATING EXPENSES..............................	—	—	—	—
40081	PLANT AND CAPITAL EQUIPMENT.......................	—	—	—	—
40082	TOTAL, BREEDER REACTOR SYSTEMS.......................	—	—	—	—
40063	SPACE/DEFENSE POWER SYSTEMS				
40064	OPERATING EXPENSES..............................	38.000	105.400	102.400	70.750
40065	PLANT AND CAPITAL EQUIPMENT.......................	10.200	28.400	28.400	25.250
40066	TOTAL SPACE/DEFENSE POWER SYSTEMS....................	48.200	133.800	130.800	96.000
40089	GENERAL REDUCTION................................	—	—	—	—
40090	SUBTOTAL, NUCLEAR R&D ACTIVITIES.....................	327.474	438.200	382.000	334.170
40092	NUCLEAR WASTE TECHNOLOGY				
40093	OPERATING EXPENSES..............................	—	—	—	—
40094	PLANT AND CAPITAL EQUIPMENT.......................	—	—	—	—
40095	TOTAL, NUCLEAR WASTE TECHNOLOGY......................	—	—	—	—
82010	CIVILIAN WASTE R & D				
82020	OPERATING EXPENSES................................	6.500	5.000	5.000	5.000
82030	PLANT AND CAPITAL EQUIPMENT........................	—	—	—	—
82040	TOTAL, CIVILIAN WASTE R & D..........................	6.500	5.000	5.000	5.000
40100	REMEDIAL ACTION AND WASTE TECHNOLOGY				
40101	OPERATING EXPENSES..............................	273.970	316.650	277.150	250.750
40102	PLANT AND CAPITAL EQUIPMENT.......................	2.900	1.350	1.350	750
40103	TOTAL, REMEDIAL ACTION AND WASTE TECHNOLOGY...........	276.870	318.000	278.500	251.500

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DEPARTMENT OF ENERGY
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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
130005	ENVIRONMENT, SAFETY, AND HEALTH				
130008	OPERATING EXPENSES..............................	59.914	75.400	71.400	67.900
130011	PLANT AND CAPITAL EQUIPMENT......................	2.100	—	2.170	2.100
130014	TOTAL, ENVIRONMENT, SAFETY, AND HEALTH.............	62.014	75.400	73.570	70.000
20002	BIOLOGICAL AND ENVIRONMENTAL RESEARCH				
20003	OPERATING EXPENSES..............................	179.492	214.400	205.500	205.500
20004	PLANT AND CAPITAL EQUIPMENT......................	14.500	22.500	12.000	12.000
20005	TOTAL, BIOLOGICAL AND ENVIRONMENTAL RESEARCH........	193.992	236.900	217.500	217.500
50430	LIQUIFIED GASEOUS SPILL TEST FACILITY				
50435	OPERATING EXPENSES..............................	2.000	1.200	500	500
50440	PLANT AND CAPITAL EQUIPMENT......................	—	—	—	—
50445	TOTAL, LIQUIFIED GASEOUS SPILL TEST FACILITY.........	2.000	1.200	500	500
20049	MAGNETIC FUSION				
20050	OPERATING EXPENSES..............................	319.103	327.959	309.030	309.030
20051	PLANT AND CAPITAL EQUIPMENT......................	26.210	39.741	36.570	36.570
20052	TOTAL, MAGNETIC FUSION............................	345.313	367.700	345.600	345.600
20053	BASIC ENERGY SCIENCES				
20054	OPERATING EXPENSES..............................	371.640	422.571	403.044	403.044
20057	PLANT AND CAPITAL EQUIPMENT......................	153.810	85.361	76.031	76.031
20058	TOTAL, BASIC ENERGY SCIENCES........................	525.450	507.932	479.075	479.075
20065	ENERGY RESEARCH OVERSIGHT,ANALY. & UNIV. SUPPORT				
20069	ENERGY RESEARCH ANALYSIS				
20070	OPERATING EXPENSES..............................	2.000	3.700	3.700	3.700
20071	PLANT AND CAPITAL EQUIPMENT......................	—	—	—	—
20072	TOTAL, ENERGY RESEARCH ANALYSIS....................	2.000	3.700	3.700	3.700
20112	UNIVERSITY RESEARCH INSTRUMENTATION.................	5.000	5.000	5.000	5.000
20079	UNIVERSITY RESEARCH SUPPORT				
20080	OPERATING EXPENSES..............................	15.775	17.100	14.900	13.400
20081	PLANT AND CAPITAL EQUIPMENT......................	—	—	—	—
20082	TOTAL, UNIVERSITY RESEARCH SUPPORT.................	15.775	17.100	14.900	13.400

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
20083	ADVISORY & OVERSIGHT PROG. DIRECTION.................	2,490	3,400	3,200	3,200
20088	SUBTOTAL, ENERGY RESEARCH OS.,ANAL., & UNIV. SUP.....	25,265	29,200	26,800	25,300
20089	MULTI-PROGRAM LABORATORIES FACILITIES SUPPORT				
20090	OPERATING EXPENSE.................................	14,255	13,900	12,900	12,900
20091	PLANT AND CAPITAL EQUIPMENT.......................	42,440	60,100	45,700	43,700
20092	TOTAL, MULTI-PROGRAM LABORATIES FACILITIES SUPPORT...	56,695	74,000	58,600	56,600
20095	SMALL BUSINESS INNOVATION RESEARCH PROGRAM............	——	——	——	——
999332	IN-HOUSE ENERGY MANAGEMENT				
159002	OPERATING EXPENSES................................	1,500	1,900	1,900	1,900
159003	PLANT AND CAPITAL EQUIP...........................	15,000	16,900	16,900	16,900
999333	TOTAL, IN-HOUSE ENERGY MANAGEMENT.....................	16,500	18,800	18,800	18,800
159005	STRATEGIC FACILITIES UTILIZATION PROGRAM..............	——	——	2,175	2,175
159006	TECHNICAL INFORMATION & MANAGEMENT PROGRAM				
159007	OPERATING EXPENSES................................	13,848	13,100	13,100	13,150
159008	PLANT AND CAPITAL EQUIPMENT.......................	850	900	900	900
159009	SUPPORT FROM OTHER PROGRAMS.......................	-4,923	——	——	——
159010	TOTAL, TECHNICAL INFORMATION & MANAGEMENT PROGRAM....	9,775	14,000	14,000	14,000
20105	POLICY AND MANAGEMENT - ER (ESRD).....................	544	600	650	650
130026	POLICY AND MANAGEMENT - EP (ESRD).....................	——	——	——	——
130029	POLICY AND MANAGEMENT - (ESRU)(ESRD...................	——	——	——	——
40107	POLICY AND MANAGEMENT - NE (ESRD).....................	1,883	2,380	2,710	2,700
70335	POLICY AND MANAGEMENT - CE(ESRD)......................	1,527	1,918	1,671	1,450
992069	TOTAL, ENERGY SUPPLY R & D	2,424,399	2,227,028	2,031,416	1,938,710

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
30466	UNOBLIG. CARRYOVER FOR LDF..........................	———	———	———	———
20263	SBIR FROM UNOBLIG-(CLEAN COAL TECH)ESRD..............	———	———	———	———
20213	SAVINGS FROM MANAGEMENT INITIATIVES - (ER)ESRD......	———	———	———	———
40295	SAVINGS FROM MANAGEMENT INITIATIVES - (NE)ESRD......	———	———	———	———
70700	SAVINGS FROM MANAGEMENT INITIATIVES - (CE)ESRD......	———	———	———	———
159505	SAVINGS FROM MANAGEMENT INITIATIVES - (MA)ESRD......	———	———	———	———
20220	USE OF FY86 DEFERRAL - (ER)ESRD.....................	———	———	———	———
70768	USE OF FY86 DEFERRAL - CE(ESRD)	———	———	———	———
210028	USE OF UNOBLIG. BALANCES - IE.......................	-604,150	———	———	———
40316	USE OF PRIOR YEAR BALANCES - SEPA	———	———	———	———
130041	ADP GENERAL REDUCTION - (ESH)ESRD...................	———	———	———	———
210050	GENERAL REDUCTION - ESRD............................	———	———	———	———
40400	USE OF PRIOR YEAR BALANCES - (NE)ESRD...............	-5,700	———	-16,000	-16,000
70790	USE OF PRIOR YEAR BALANCES - (CE)ESRD...............	———	———	———	———
130050	LESS TRANSFER FOR ESH-(DP)AEDA......................	———	———	———	———
70782	COOPERATIVE VENTURE R&D POOLS OFFSET - ESRD.........	———	———	-5,000	———
40286	ADJUSTMENT FOR CONG REDUCTION-(NE)ESRD..............	93	———	———	———
130056	ADJUSTMENT FOR CONG REDUCTION-(ESH)ESRD.............	3	———	———	———
20267	ADJUSTMENT FOR CONG REDUCTION-(ER)ESRD..............	379	———	———	———
70786	ADJUSTMENT FOR CONG REDUCTIONS-(CE)ESRD.............	913	———	———	———
70787	RESCISSIONS, DEFERRAL, SUPP - (CE)ESRD..............	-13,100	———	———	———
159555	RESCISSIONS, DEFERRAL, SUPP -(MA)ESRD...............	———	———	———	———
20264	RESCISSIONS, DEFERRALS, SUPP.-(ER)..................	-60,700	———	———	———
20266	REQUIREMENTS FOR FERS-(ER) ESRD.....................	———	———	921	———
40290	REQUIREMENTS FOR FERS-(NE) ESRD.....................	———	———	508	———
70791	REQUIREMENTS FOR FERS-(CE) ESRD.....................	———	———	316	———
130057	REQUIREMENTS FOR FERS-(ESH) ESRD....................	———	———	473	———
159557	REQUIREMENTS FOR FERS-(MA) ESRD.....................	———	———	500	———
992090	TOTAL, ENERGY SUPPLY R & D..........................	1,254,131	2,237,028	2,013,134	1,914,710
992091	(OPERATING EXPENSES)................................	967,076	1,959,204	1,771,542	1,682,317
992092	(PLANT AND CAPITAL EQUIPMENT).......................	287,055	277,824	241,592	232,393

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DEPARTMENT OF ENERGY
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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
993000	URANIUM ENRICHMENT				
40108	URANIUM ENRICHMENT ACTIVITIES				
40109	OPERATING EXPENSES..............................	1,078,749	1,145,800	1,036,600	1,013,000
40110	PLANT AND CAPITAL EQUIPMENT........................	22,800	81,100	76,100	51,500
40111	EQUIVALENT REPAYMENT (NON-ADD).....................	——	——	(-15,000)	——
40112	REPAYMENT TO TREASURY.............................	104,000	270,000	166,000	——
40113	REPAYMENT TO TREASURY (NON-ADD)....................	——	——	——	(231,000)
40116	SUBTOTAL, URANIUM ENRICHMENT ACTIVITIES..........	1,205,549	1,496,900	1,278,700	1,064,500
40118	URANIUM PROGRAM DIRECTION..........................	4,775	5,400	5,300	5,500
40119	TOTAL, URANIUM ENRICHMENT ACTIVITIES................	1,210,324	1,502,300	1,284,000	1,070,000
40138	REVENUES				
40139	OPERATING EXPENSES..............................	——	-1,502,300	-1,284,000	——
40140	PLANT AND CAPITAL EQUIPMENT........................	——	——	——	——
40141	TOTAL, REVENUES..	——	-1,502,300	-1,284,000	——
40330	ABSENCE OF TRANSFER FOR ESAA-(NE)UE..................	——	——	——	——
40352	REQUIREMENTS FOR FERS - (ES&H) ESPR..................	——	——	207	——
40285	RESCISSIONS, DEFERRALS, SUPP........................	——	——	——	——
40287	ADJUSTMENT FOR CONG REDUCTIONS-(NE)UE..................	76	——	——	——
993090	TOTAL, URANIUM ENRICHMENT..............................	1,210,400	——	207	1,070,000
993091	(OPERATING EXPENSES)................................	1,187,600	-81,100	-75,893	1,018,500
993092	(PLANT AND CAPITAL EQUIPMENT)......................	22,800	81,100	76,100	51,500

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
991500	GENERAL SCIENCE				
20117	HIGH ENERGY PHYSICS				
20118	OPERATING EXPENSES................................	398.279	486.800	471.300	437.198
20119	PLANT AND CAPITAL EQUIPMENT........................	101.400	136.400	126.400	129.400
20120	TOTAL, HIGH ENERGY PHYSICS..........................	499.679	623.200	597.700	566.598
20121	NUCLEAR PHYSICS				
20122	OPERATING EXPENSES................................	177.068	186.023	186.023	185.925
20123	PLANT AND CAPITAL EQUIPMENT........................	39.975	73.675	55.675	59.175
20124	TOTAL, NUCLEAR PHYSICS..............................	217.043	259.698	241.698	245.100
20125	HIGH ENERGY AND NUCLEAR PHYSICS PROG. DIRECTION (OS).	2.453	3.500	3.100	2.800
991593	TOTAL, GENERAL SCIENCE..............................	719.175	886.398	842.498	814.498
20260	ADDBACK OF PROPOSED TRANSFER FOR ES&H - (ESH)ESHB...	—	—	—	—
20262	ADDBACK OF PROPOSED FTE REDUCTION - (ER)OS..........	—	—	—	—
20268	ADJUSTMENT FOR CONG REDUCTIONS-(ER)OS................	342	—	—	—
20207	SAVINGS FROM FY84 INITIATIVES - (ER)OS..............	—	—	—	—
20212	GENERAL REDUCTION - (ER)OS..........................	—	—	—	—
20250	TRANSFER OF APPROPRIATION/AND NEW FERS..............	—	—	136	—
20255	GENERAL REDUCTION - OS..............................	—	—	—	—
991594	TOTAL, GENERAL SCIENCE..............................	719.517	886.398	842.634	814.498
991591	(OPERATING EXPENSES)................................	578.142	676.323	660.423	625.923
991592	(PLANT AND CAPITAL EQUIPMENT).......................	141.375	210.075	182.211	188.575

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
991000	ATOMIC ENERGY				
10010	RESEARCH, DEVELOPMENT AND TESTING				
10011	OPERATING EXPENSES	1,401,222	1,780,000	1,475,000	1,573,119
10014	PLANT AND CAPITAL EQUIPMENT	297,511	506,430	429,350	395,850
10022	TOTAL, RESEARCH AND DEVELOPMENT AND TESTING	1,698,733	2,286,430	1,904,350	1,968,969
10024	INERTIAL CONFINEMENT FUSION				
10025	OPERATING EXPENSES	142,713	22,500	112,500	112,500
10026	PLANT AND CAPITAL EQUIPMENT	8,858	1,500	1,500	6,000
10027	TOTAL, INERTIAL CONFINEMENT FUSION	151,571	24,000	114,000	118,500
10029	PRODUCTION AND SURVEILLANCE				
10030	OPERATING EXPENSES	1,813,336	2,046,000	1,923,744	1,911,330
10031	PLANT AND CAPITAL EQUIPMENT	447,772	553,770	441,106	461,106
10032	TOTAL, PRODUCTION AND SURVEILLANCE	2,261,108	2,599,770	2,364,850	2,372,436
[illegible]	PROGRAM DIRECTION - DEFENSE PROGRAMS	69,760	102,200	78,100	74,825
[illegible]	MATERIALS PRODUCTION				
[illegible]	OPERATING EXPENSES	1,456,324	1,910,539	1,541,100	1,489,039
[illegible]	PLANT AND CAPITAL EQUIPMENT	403,037	619,461	435,600	392,581
[illegible]	TOTAL, MATERIALS PRODUCTION	1,859,361	2,530,000	1,976,700	1,881,620
[illegible]	DEFENSE WASTE & TRANSPORTATION MANAGEMENT				
[illegible]	OPERATING EXPENSES	432,718	602,105	587,299	492,598
[illegible]	PLANT AND CAPITAL EQUIPMENT	239,512	373,335	355,201	318,631
[illegible]	TOTAL, DEFENSE WASTE & TRANSPORTATION MANAGEMENT	672,230	975,440	942,500	811,229
[illegible]	VERIFICATION AND CONTROL TECHNOLOGY				
[illegible]	OPERATING EXPENSES	90,108	121,753	96,500	95,525
[illegible]	PLANT AND CAPITAL EQUIPMENT	6,649	5,705	5,400	5,100
[illegible]	TOTAL, VERIFICATION AND CONTROL TECHNOLOGY	96,757	127,458	101,900	100,625
[illegible]	NUCLEAR SAFEGUARDS & SECURITY				
[illegible]	OPERATING EXPENSES	59,061	80,307	77,100	71,250
[illegible]	PLANT AND CAPITAL EQUIPMENT	5,253	6,495	5,635	6,630
[illegible]	TOTAL, NUCLEAR SAFEGUARDS & SECURITY	64,314	86,802	82,735	77,880

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DEPARTMENT OF ENERGY
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B/S CODE ----	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
10079	SECURITY INVESTIGATIONS				
10080	OPERATING EXPENSES	32,675	38,000	36,000	32,000
40154	NAVAL REACTORS DEVELOPMENT				
40155	OPERATING EXPENSES	512,586	552,100	552,100	544,100
40156	PLANT AND CAPITAL EQUIPMENT	62,794	67,900	67,900	67,900
40157	TOTAL, NAVAL REACTORS DEVELOPMENT	575,380	620,000	620,000	612,000
991093	TOTAL, ATOMIC ENERGY	7,480,889	9,398,220	8,221,100	8,050,000
10160	ABSENCE OF TRANSFER TO ESAA-(DP)AEDA	—	—	—	—
10161	ABSENCE OF PROPOSED FTE REDUCTION - (DP)AEDA	—	—	—	—
40333	ABSENCE OF PROPOSED FTE REDUCTION - (NE)AEDA	—	—	—	—
10110	ABSENCE OF G-R-H RED. AGAINST BALANCES	—	—	—	—
10130	UNOBLIGATED BALANCES BROUGHT FORWARD	—	—	—	—
10204	GENERAL REDUCTION	—	—	—	—
10200	SAVINGS FROM MANAGEMENT INITIATIVES - (DP)AEDA	—	—	—	—
10202	SAVINGS FROM FY84 INITIATIVES - (DP)AEDA(FERS)	—	—	7,092	—
10203	ADJUSTMENT FOR COMB REDUCTIONS-(DP)AEDA	963	—	—	—
991095	TOTAL, ATOMIC ENERGY	7,481,852	9,398,220	8,228,192	8,050,000
991091	(OPERATING EXPENSES)	6,012,467	7,263,499	6,486,535	6,398,212
991092	(PLANT AND CAPITAL EQUIPMENT)	1,469,385	2,134,721	1,741,657	1,651,788

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DEPARTMENT OF ENERGY
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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
999000	DEPARTMENTAL ADMINISTRATION				
164005	OFFICE OF THE SECRETARY..............................	1,914	1,934	1,934	1,928
162005	BOARD OF CONTRACT APPEALS..........................	424	478	499	442
160006	GENERAL COUNSEL......................................	10,926	11,539	10,944	10,944
170010	INSPECTOR GENERAL - OE...............................	20,914	31,848	20,882	20,485
170012	INSPECTOR GENERAL - OE...............................	250	407	288	288
170100	TOTAL, INSPECTOR GENERAL.............................	21,164	32,255	21,170	20,773
151999	MANAGEMENT AND ADMINISTRATION				
152000	OPERATING EXPENSES................................	146,248	146,278	149,547	145,102
152005	PLANT AND CAPITAL EQUIPMENT......................	6,688	7,702	7,702	4,505
152009	TOTAL MANAGEMENT AND ADMINISTRATION.................	152,936	153,980	157,249	149,607
153024	OPERATIONS OFFICES				
153025	OPERATING EXPENSES................................	108,553	124,114	114,494	106,227
153026	PLANT AND CAPITAL EQUIPMENT......................	1,250	2,013	3,480	1,080
153028	TOTAL, OPERATIONS OFFICES...........................	109,803	126,127	117,974	107,307
200010	MINORITY ECONOMIC IMPACT.............................	3,087	3,091	3,319	3,319
120010	POLICY ANALYSIS AND SYSTEM STUDIES..................	5,226	7,902	8,045	8,045
999091	CONGRESSIONAL, INTERGOV. & PUBLIC AFFAIRS...........				
190037	PROGRAM DIRECTION..................................	5,554	5,317	5,225	5,225
190010	INDIAN AFFAIRS.....................................	200	----	----	----
190030	CONSUMER AFFAIRS...................................	50	65	65	65
190020	PUBLIC AFFAIRS.....................................	206	251	251	251
190021	COMPETITION..	50	50	50	50
999092	SUBTOTAL, CONGRESS., INTERGOV. & PUBLIC AFFAIRS......	6,060	5,683	5,591	5,591
140100	INTERNATIONAL AFFAIRS................................	4,237	5,466	5,416	4,916
140202	POLICY AND MANAGEMENT - IA(BA)......................	753	700	769	769
159017	COST OF WORK FOR OTHERS..............................	115,050	110,570	110,570	110,570

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
159018	REVENUES ASSOCIATED WITH COST OF WORK..................	-143.428	-124.450	-124.450	-130.450
159019	OTHER REVENUES..	-108.519	-103.446	-103.446	-103.446
159020	SUBTOTAL, REVENUES....................................	-251.947	-227.896	-227.896	-233.896
999097	TOTAL, DEPARTMENTAL ADMINISTRATION....................	175.353	232.649	215.584	190.315
159517	ADDBACK OF PROPOSED RESCISSION-(MA)DA................	—	—	—	—
159120	USE OF PRIOR YEAR BALANCES - (MA)DA..................	—	—	—	—
159509	SAVINGS FROM MANAGEMENT INITIATIVES - (MA)DA.........	—	—	—	—
159508	REQUIREMENT FOR FERS - (MA)DA........................	—	—	—	—
160010	SAVINGS FROM FY84 INITIATIVES - (OC).................	—	—	—	—
190039	SAVINGS FROM FY84 INITIATIVES - (CP).................	—	—	—	—
159512	LESS USE OF PRIOR YEAR BALANCES......................	—	-6.000	-6.000	-24.182
159125	FTE REDUCTION-(MA)DA.................................	—	—	—	—
159551	ADJUSTMENT FOR PROPOSED FTE REDUCTION - (MA)DA.......	—	—	—	—
159553	LESS PROPOSED CONGRESSIONAL REDUCTIONS...............	—	—	—	—
120030	'UNOBL BAL TO FINANCE FY88-(PPA)DA..................	629	—	—	—
140204	LESS USE OF PRIOR YR UNOBL BAL-(IA)DA................	-200	—	—	—
159559	LESS USE OF PRIOR YR UNOBL BAL-(MA)DA................	-22.891	—	—	—
160014	LESS USE OF PRIOR YR UNOBL BAL-(OC)DA................	-973	—	—	—
162009	LESS USE OF PRIOR YR UNOBL BAL-(ERA)DA...............	-68	—	—	—
164009	LESS USE OF RIOR YR UNOBL BAL-(OSEC)DA...............	-106	—	—	—
170016	LESS USE OF PRIOR YR UNOBL BAL-(IG)DA................	-72	—	—	—
190043	LESS USE OF PRIOR YR UNOBL BAL-(CP)DA................	-1.145	—	—	—
200014	LESS USE OF PRIOR YR UNOBL BAL-(OPET)DA..............	-437	—	—	—
159561	LESS USE OF PRIOR YR UNOBL BAL-(OPS)DA...............	-10.581	—	—	—
999090	TOTAL, DEPARTMENTAL ADMINISTRATION (NET).............	139.509	226.649	209.584	166.133
999095	(OPERATING EXPENSES - NET)............	131.321	216.527	198.114	160.260
999096	(PLANT AND CAPITAL EQUIPMENT - NET)............	8.188	10.122	11.470	5.873

ROUHEL DEPARTMENT OF ENERGY BY APPROPRIATION
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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
997080	ALASKA POWER O&M				
70450	POWER MARKETING - ALASKA POWER ADMINISTRATION........	3,281	3,191	3,300	3,191
70703	USE OF PRIOR YEAR BALANCES - (CE)APA................	-400	——	——	-165
997090	TOTAL, ALASKA POWER	2,881	3,191	3,300	3,026
70805	EFFECT OF PRIVATIZATION - APA........................	——	——	——	——
70801	PRIV. - SALE OF ASSETS - APA(NON-ADD)................	——	——	——	——
999467	TOTAL, ALASKA POWER..................................	2,881	3,191	3,300	3,026

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
997200	BONNEVILLE				
01006	POWER MARKETING - BONNEVILLE POWER ADMINISTRATION...	———	———	———	———
01012	PERMANENT INDEFINITE BORROWING AUTHORITY............	327,659	325,200	300,800	205,800
997290	TOTAL, BONNEVILLE POWER ADMIN.........................	327,659	325,200	300,800	205,800
01055	EFFECT OF PRIVATIZATION- BPA..........................	———	———	———	———
01056	PRIV. - SALE OF ASSETS - BPA(NON-ADD).................	———	———	———	———
01057	TOTAL, BONNEVILLE POWER ADMINISTRATION...............	327,659	325,200	300,800	205,800

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
997400	SOUTHEASTERN O&M				
70470	POWER MARKETING - SOUTHEASTERN POWER ADMINISTRATION..	21.736	27.700	27.490	27.400
70611	INCREASE IN NET BILLING...........................	—	—	—	—
70612	USE OF PRIOR YEAR DEFERRALS........................	-2.089	—	—	—
997490	TOTAL, SOUTHEASTERN O&M............................	19.647	27.700	27.490	27.400
70807	EFFECT OF PRIVATIZATION- SEPA.......................	—	-27.700	-27.490	—
70802	PRIV. - SALE OF ASSETS - SEPA(NON-ADD)................	—	—	—	—
999470	TOTAL, SOUTHEASTERN O&M............................	19.647	—	—	27.400
997500	SOUTHEASTERN CONT. FUND				
72465	SOUTHEASTERN POWER - CONT. FUND......................	—	500	—	—
997590	TOTAL, SOUTHEASTERN CONT. FUND......................	—	500	—	—

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
997600	SOUTHWESTERN O&M				
79400	POWER MARKETING - SOUTHWESTERN POWER ADMINISTRATION..	38.560	38.041	30.733	30.300
79634	USE OF PRIOR YEAR BALANCES CB (SWPA)...............	-13.243	——	——	-13.660
70797	SAVINGS FROM MANAGEMENT INITIATIVES - (CE)SWPA......	——	——	——	——
70777	ADDBACK OF PROPOSED FTE REDUCTION - (CE)SWPA........	——	——	——	——
70785	ADJUSTMENT FOR CONG. REDUCTIONS-(CE)SWPA..............	20	——	——	——
997690	TOTAL, SOUTHWESTERN O&M.............................	25.337	38.041	30.733	16.640
79809	EFFECT OF PRIVATIZATION- SWPA........................	——	-38.041	-30.733	——
79803	PRIV. - SALE OF ASSETS - SWPA(NON-ADD)................	——	——	——	——
999476	TOTAL, SOUTHWESTERN O&M.............................	25.337	——	——	16.640
998020	SOUTHWESTERN CONT. FUND				
70300	SOUTHWESTERN POWER - CONT. FUND......................	——	——	——	——
998090	TOTAL, SOUTHWESTERN CONT. FUND......................	——	——	——	——

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A/B CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
998200	WESTERN AREA O&M				
80003	POWER MARKETING - WAPA O&M..............................	280.292	351.000	302.700	292.997
80022	USE OF PRIOR YEAR BALANCES..............................	-43.466	——	——	-4.485
80025	SAVINGS FROM MANAGEMENT INITIATIVES - (WAPA)WAPA.....	——	——	——	——
80030	GENERAL REDUCTION..	——	——	——	——
80035	TRANSFER FROM DOI - WAPA(PERM.AUTH.)(NONADD)..........	——	——	(-3.960)	——
80037	TRANSFER FROM DOI..	3.463	——	——	7.003
80040	ABSENCE OF PROPOSED FTE REDUCTION - (WAPA)WAPA......	——	——	——	——
80042	ADJUSTMENT FOR CONG. REDUCTIONS-WAPA.................	20	——	——	——
998290	TOTAL, WESTERN AREA O&M.................................	240.309	351.000	302.700	295.515
80055	EFFECT OF PRIVATIZATION- WAPA...........................	——	——	——	——
80057	PRIV. - SALE OF ASSETS - WAPA(NON-ADD)................	——	——	——	——
88888	TOTAL, WESTERN AREA POWER ADMINISTRATION..............	240.309	351.000	302.700	295.515
998800	WESTERN AREA POWER - EMERGENCY FUND				
80015	WAPA EMERGENCY FUND.....................................	225	——	——	——
998890	TOTAL, WAPA EMERGENCY FUND..............................	225	——	——	——
998600	COLORADO RIVER BASIN				
80010	COLORADO RIVER BASIN (NON-ADD)........................	(82.000)	(87.000)	(87.000)	(87.000)
80056	EFFECT OF PRIVATIZATION- CRB............................	——	——	——	——
998690	TOTAL, COLORADO RIVER BASIN.............................	——	——	——	——

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DEPARTMENT OF ENERGY
FY 1988 CONTROL TABLE
(DOLLARS IN THOUSANDS)

BY APPROPRIATION
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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
995600	FERC SALARIES AND EXPENSES				
90010	OIL PIPELINE REGULATION	5.319	106.324	5.730	5.770
90020	NATURAL GAS REGULATION	45.577	—	47.499	47.519
90030	HYDRO POWER LICENSING	27.028	—	29.728	29.670
90040	ELECTRIC POWER REGULATION	20.855	—	21.117	21.033
90079	USE OF ERA BALANCES - (FERC)FERC	—	—	—	—
90043	TOTAL, FERC	98.779	106.324	104.074	104.080
90047	REVENUES	-102.344	-110.507	-104.971	-104.980
90080	TOTAL, F E R C.	-3.565	-4.183	-897	-900
90045	REQUIREMENT FOR FERC	—	—	4.306	—
90070	TRANSFER FROM UNOBL. BAL. - ERA	—	—	—	—
90075	ABSENCE OF PROPOSED FTE REDUCTION - (FERC)FERC	—	—	—	—
90078	LESS PROPOSED PAY RAISE SUPPLEMENTAL	—	—	—	—
90076	ADJUSTMENT FOR CONG. REDUCTIONS-(FERC)FERC	100	—	—	—
995690	TOTAL, FERC SALARIES AND EXPENSES	-3.465	-4.183	3.409	-900

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A/B CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/B REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REC. B/A
02960	NUCLEAR WASTE FUND				
02970	NUCLEAR WASTE FUND - GE.	486,961	896,147	725,000	300,000
02982	REQUIREMENTS FOR FERS.	——	——	1,201	——
02980	NUCLEAR WASTE FUND - PACE.	12,039	51,803	——	——
159011	NUCLEAR WASTE FUND.	——	——	——	——
160007	NUCLEAR WASTE FUND.	——	——	——	——
160209	ADDBACK OF CONGRESSIONAL REDUCTIONS.	——	——	——	——
02100	TOTAL, NUCLEAR WASTE FUND.	499,000	947,950	726,201	300,000

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DEPARTMENT OF ENERGY
FY 1988 CONTROL TABLE
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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
996000	GEOTHERMAL RESOURCES				
70042	GEOTHERMAL RESOURCES DEVELOPMENT FUND..................	72	72	76	72
996090	TOTAL, GEOTHERMAL RESOURCES...........................	72	72	76	72
994290	ALTERNATIVE FUELS PRODUCTION				
30447	ALTERNATIVE FUELS PRODUCTION - FE (APP)..............	—	—	—	—
994291	TOTAL, ALTERNATIVE FUELS PRODUCTION....................	—	—	—	—
999464	CLEAN COAL TECHNOLOGY				
30449	CLEAN COAL TECHNOLOGY................................	—	—	—	50.000
30450	ADVANCE APPROP.(CCT) PERM............................	—	—	—	—
30451	CLEAN COAL TECHNOLOGY (NON-ADD)......................	(149.100)	—	(149.100)	(149.100)
30452	USE OF PRIOR YEAR BALANCES (SBTR)....................	—	—	—	—
30453	TOTAL, CLEAN COAL TECHNOLOGY........................	—	—	—	50.000

A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
	992500 FOSSIL ENERGY				
50010	COAL				
50015	CONTROL TECHNOLOGY & COAL PREPARATION				
50020	OP. EXP. & CAP. EQUIP.	37.626	37.746	35.996	33.000
50025	CONSTRUCTION	—	—	—	—
50030	TOTAL, CONTROL TECHNOLOGY & COAL PREPARATION	37.626	37.746	35.996	33.000
50035	ADV. RESEARCH & TECHNOLOGY DEV				
50040	OP. EXP. & CAP. EQUIP.	32.387	41.210	29.109	26.000
50045	CONSTRUCTION	—	—	—	—
50070	TOTAL, ADV. RESEARCH & TECHNOLOGY DEV.	32.387	41.210	29.109	26.000
50075	COAL LIQUEFACTION				
50080	OP. EXP. & CAP. EQUIP.	24.107	21.900	11.527	9.500
50085	CONSTRUCTION	—	—	—	—
50090	TOTAL, COAL LIQUEFACTION	24.107	21.900	11.527	9.500
50095	COMBUSTION SYSTEMS				
50100	OP. EXP. & CAP. EQUIP.	15.142	22.000	17.299	21.600
50105	CONSTRUCTION	—	—	—	—
50110	ADVANCE APPROP.-AFB (PEDAP)	—	—	—	—
50115	TOTAL, COMBUSTION SYSTEMS	15.142	22.000	17.299	21.600
50120	FUEL CELLS				
50125	OP. EXP. & CAP. EQUIP.	20.084	20.000	8.414	5.200
50130	CONSTRUCTION	—	—	—	—
50135	TOTAL, FUEL CELLS	20.084	20.000	8.414	5.200
50140	HEAT ENGINES AND HEAT RECOVERY				
50145	OP. EXP. & CAP. EQUIP.	12.146	20.000	9.500	8.300
50150	CONSTRUCTION	—	—	—	—
50155	TOTAL, HEAT ENGINES AND HEAT RECOVERY	12.146	20.000	9.500	8.300
50160	UNDERGROUND COAL GASIFICATION				
50165	OP. EXP. & CAP. EQUIP.	2.370	1.500	1.500	—
50170	CONSTRUCTION	—	—	—	—
50175	TOTAL, UNDERGROUND COAL GASIFICATION	2.370	1.500	1.500	—

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
50180	MAGNETOHYDRODYNAMICS				
50185	OP. EXP. & CAP. EQUIP.	26.500	22.000	—	—
50190	CONSTRUCTION	—	—	—	—
50195	TOTAL, MAGNETOHYDRODYNAMICS	26.500	22.000	—	—
50200	SURFACE COAL GASIFICATION				
50205	OP. EXP. & CAP. EQUIP.	24.655	24.560	8.528	5.800
50210	CONSTRUCTION	—	—	—	—
50215	TOTAL, SURFACE COAL GASIFICATION	24.655	24.560	8.528	5.800
50230	SUBTOTAL, COAL	283.217	211.724	121.873	109.400
50235	GAS				
50240	UNCONVENTIONAL GAS RECOVERY				
50245	OP. EXP. & CAP. EQUIP.	8.009	4.452	4.452	1.600
50250	CONSTRUCTION	—	—	—	—
50255	TOTAL, UNCONVENTIONAL GAS RECOVERY	8.009	4.452	4.452	1.600
50270	SUBTOTAL - GAS	8.009	4.452	4.452	1.600
50275	PETROLEUM R&D				
50280	ADVANCED PROCESS TECHNOLOGY				
50285	OP. EXP. & CAP. EQUIP.	3.785	2.118	2.118	2.000
50290	CONSTRUCTION	—	—	—	—
50295	TOTAL, ADVANCED PROCESS TECHNOLOGY	3.785	2.118	2.118	2.000
50320	ENHANCED OIL RECOVERY				
50325	OP. EXP. & CAP. EQUIP.	11.211	7.209	17.209	9.300
50330	CONSTRUCTION	—	—	—	—
50335	TOTAL, ENHANCED OIL RECOVERY	11.211	7.209	17.209	9.300
50340	OIL SHALE				
50345	OP. EXP. & CAP. EQUIP.	10.967	6.020	6.020	955
50350	CONSTRUCTION	—	—	—	—
50355	TOTAL, OIL SHALE	10.967	6.020	6.020	955
50370	SUBTOTAL PETROLEUM	25.963	15.347	25.347	[illegible].755

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                                              FY 1988 CONTROL TABLE
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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
[illegible]	POLICY AND MANAGEMENT				
[illegible]	HEADQUARTERS PROGRAM DIRECTION	14,380	13,244	12,412	10,835
[illegible]	ETC PROGRAM DIRECTION	46,???	49,887	46,344	27,685
[illegible]	FEDERAL INSPECTOR FOR THE ALASKA GAS PIPELINE	225	230	230	230
[illegible]	CAPITAL EQUIPMENT	1,300	3,671	400	400
[illegible]	CONSTRUCTION	1,750	9,279	—	—
[illegible]	SUBTOTAL, POLICY AND MANAGEMENT	64,7??	76,311	59,436	37,145
[illegible]	COOPERATIVE [illegible] AND FUELS	—	7,9??	7,700	7,000
[illegible]	[illegible]	—	—	—	—
[illegible]	[illegible]	—	—	—	—
[illegible]	TOTAL, FOSSIL ENERGY	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	USE OF PY [illegible] DEFERRAL - [illegible]	-3,137	—	—	—
[illegible]	USE OF UNOBLIGATED BALANCES - FE [illegible]	—	—	—	—
[illegible]	TRANSFER FROM FOSSIL ENERGY CONSTRUCTION	-2,070	—	—	—
[illegible]	TRANSFER FROM ALT. FUELS - FE [illegible]	—	—	—	—
[illegible]	TRANSFER FROM NAVAL PETROLEUM RESERVE	—	—	—	—
[illegible]	TRANSFER FROM ENERGY SEC. RES.	-437	-500	-500	-500
[illegible]	PROGRAM OFFSET	—	—	—	—
[illegible]	CR OFFSET	—	—	-2,798	—
[illegible]	SAVINGS FROM MANAGEMENT INITIATIVES - [illegible]	—	—	—	—
[illegible]	EMPLOYMENT FLOORS	—	—	—	—
[illegible]	ADVANCE APPROPRIATION [illegible] FY [illegible]	—	—	1,620	—
[illegible]	TRANS FROM FED. [illegible] FOR ALASKA	-61	—	—	—
[illegible]	RESCISSIONS, DEFERRALS, [illegible]	[illegible]	—	—	—
[illegible]	TOTAL, FOSSIL ENERGY	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	OP. EXP. & CAP. EQUIP.	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	CONSTRUCTION	[illegible]	9,279	—	—

[illegible]

[illegible]

DEPARTMENT OF ENERGY
FY 1988 CONTROL TABLE
(DOLLARS IN THOUSANDS)

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A/S CODE ----	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
[illegible]	NAVAL PETROLEUM AND OIL SHALE RESERVES				
[illegible]	NAVAL PETROLEUM AND OIL SHALE RESERVES	158,638	207,639	177,700	177,700
[illegible]	USE OF PRIOR YEAR BALANCES,NPR	-36,461	——	-18,000	-18,000
[illegible]	SAVINGS FROM FY88 INITIATIVES - [illegible]	——	——	245	——
[illegible]	TOTAL, NAVAL PETROLEUM AND OIL SHALE RESERVES	122,177	207,639	159,945	159,700
[illegible]	EFFECT OF PRIVATIZATION- NPR	——	——	-159,735	——
[illegible]	PRIV. - SALE OF ASSETS - [illegible]	——	——	——	(-2,500,000)
[illegible]	TOTAL, NAVAL PETROLEUM AND OIL SHALE RESERVES	122,177	207,639	210	159,700

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DEPARTMENT OF ENERGY
FY 1988 CONTROL TABLE
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A/B CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
994000	CONSERVATION				
70344	TRANSPORTATION	56,055	45,206	32,846	22,409
70350	INDUSTRIAL	35,026	33,068	17,972	16,035
70360	BUILDINGS AND COMMUNITY SYSTEMS	30,450	37,453	14,946	14,578
70375	MULTI-SECTOR	28,304	32,271	25,801	20,406
70378	FACILITIES	10,000	—	—	—
70380	COOPERATIVE VENTURE R&D POOLS	—	—	5,000	5,000
70376	POLICY AND MANAGEMENT - CE(EC)	1,862	2,471	1,662	1,662
70377	POLICY ANALYSIS	—	—	—	—
70381	SUBTOTAL, CONSERVATION RESEARCH AND DEVELOPMENT	161,697	150,469	98,227	80,090
70382	STATE AND LOCAL	213,500	9,789	7,789	6,000
70429	SUBTOTAL ENERGY CONSERVATION	375,197	160,258	106,016	86,090
70633	APPROPRIATED TO HHS CS (EC - OE)	—	—	—	—
70639	USE OF PRIOR YEAR BALANCES, EC	-7,510	—	—	—
70769	USE OF FY86 DEFERRAL - (CE)EC	—	—	—	—
70751	SAVINGS FROM MANAGEMENT INITIATIVES - (CE)EC R&D	—	—	—	—
70755	PETROLEUM OVERCHARGE (PODRA)	-134,067	—	—	—
70760	REMAINING INDEFINITE APPROPRIATION	46,517	—	—	—
70770	EMPLOYMENT FLOORS/FERS	—	—	696	—
70784	COOPERATIVE VENTURE R&D POOLS-CE	—	—	-5,000	—
70789	RESCISSIONS & REDUCTIONS TO INDEFINITE APPROP	-130,458	—	—	—
994090	TOTAL, ENERGY CONSERVATION	149,679	160,258	101,712	86,090

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DEPARTMENT OF ENERGY
FY 1988 CONTROL TABLE
(DOLLARS IN THOUSANDS)

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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
995200	ECONOMIC REGULATION				
100010	FUELS CONVERSION..................................	2,000	587	587	587
100040	COMPLIANCE..	13,685	13,105	13,105	13,105
100082	NATURAL GAS & ELECTRICITY...........................	2,060	2,092	2,092	2,092
100120	PROGRAM ADMINISTRATION..............................	655	701	1,227	701
100085	OFFICE OF HEARINGS AND APPEALS......................	5,000	5,195	5,426	5,195
995290	TOTAL, ENERGY REGULATION...........................	23,400	21,680	22,437	21,680

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DEPARTMENT OF ENERGY
FY 1988 CONTROL TABLE
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A/R CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
993205	EMERGENCY PREPAREDNESS				
140205	ENERGY EMERGENCIES..................................	6,044	6,956	6,431	6,206
993210	TOTAL,EMERGENCY PREPAREDNESS..........................	6,044	6,956	6,431	6,206

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DEPARTMENT OF ENERGY
FY 1988 CONTROL TABLE
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A/S CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/S REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
994C30	STRATEGIC PETROLEUM RESERVE				
50455	STRATEGIC PETROLEUM RESERVE..........................	147,433	164,869	150,193	142,437
30002	USE OF PRIOR YEAR BALANCES.SPR/FEML.................	—	—	419	—
50457	SUBTOTAL, SPR......................................	147,433	164,869	150,612	142,437
50456	SPR PETROLEUM ACCOUNT...............................	—	—	480,180	127,744
999999	TOTAL, STRATEGIC PETROLEUM RESERVE....................	147,433	164,869	630,792	270,181

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DEPARTMENT OF ENERGY
FY 1988 CONTROL TABLE
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A/B CODE	ACCOUNT TITLE	FY 1987 IN FY88 STR B/A	FY 1988 A/B REQ. B/A	FY 1988 OMB REQUEST B/A	FY 1988 CONG. REQ. B/A
99400	ENERGY INFORMATION ACTIVITIES				
110001	NATIONAL ENERGY INFORMATION SYSTEM				
110002	OIL AND GAS....................................	12,569	13,173	12,625	12,625
110004	COAL, NUCLEAR, ELECTRIC AND ALTERNATE FUELS..........	3,989	5,059	4,809	4,809
110006	ENERGY MARKETS AND END USE............................	4,130	4,969	4,032	4,032
110008	AUTOMATED DATA PROCESSING SERVICES STAFF.............	8,727	7,313	7,213	7,413
110010	ENERGY INFORMATION CENTER............................	604	628	628	628
110012	STATISTICAL STANDARDS................................	855	1,108	1,090	1,090
110014	PROGRAM DIRECTION/PERS...............................	19,104	20,833	21,883	20,777
110096	SUBTOTAL, NATIONAL ENERGY INFORMATION SYSTEM.........	49,978	53,083	52,280	51,374
110018	POLICY AND MANAGEMENT................................	10,323	10,759	10,649	10,225
110020	COLLECTION PRODUCTION AND ANALYSIS....................	—	—	—	—
110040	PROGRAM SERVICES......................................	—	—	—	—
99400	TOTAL, ENERGY INFORMATION ACTIVITIES..................	60,301	63,842	62,929	61,599

QUESTIONS FROM SENATOR MCCLURE

FY 1988 BUDGET REQUEST

Question 4: Would you provide for the record a table by appropriations account indicating --

a. any assumptions regarding carryover of fiscal year 1987 appropriations into fiscal year 1988?

b. any proposed or anticipated supplemental appropriations?

Answer: We will be glad to submit a table for the record indicating the estimated carryover of unobligated balances into FY 1988. It should be noted that these unobligated balances have been utilized whenever possible in FY 1988 to offset our need for additional budget authority.

The Department's FY 1988 budget request submitted in January indicates the potential need for a budget amendment in several areas. The request for the Nuclear Waste Fund is based upon the recognition that Congressional direction provided in the FY 1987 Continuing Resolution indicated the need to interact with Congress and resolve external issues before moving forward with the full program described in the Budget. A request for additional funding would be appropriate presuming satisfactory resolution on these issues. The Budget also proposes that Government and industry cooperative R&D ventures be established. Additional fundng required will be based on the amount of industry interest in these ventures. Our current estimate indicates a need for approximately $17 million in the areas of Solar and Renewable Energy, Fossil Energy R&D, and Energy Conservation R&D. [The information follows.]

DEPARTMENT OF ENERGY

Estimated Unobligated Balances
Beginning of FY 1988

(Dollars in Thousands)

Appropriation	Balances
Atomic Energy Defense	---
General Science	---
Energy Supply	---
Uranium Enrichment	---
Departmental Administration	$ 24,182
PMA's	
Alaska	$ 365*
SWPA	13,660
WAPA	4,485
Total, PMA's	$ 18,510
FERC	---
Nuclear Waste Disposal Fund	---
Geothermal Resources Development Fund	11,306
Total, Energy & Water Dev.	53,998
Interior and Related Agencies:	
Fossil Energy R&D	---
Naval Petroleum & Oil Shale Reserves	18,000
Energy Conservation	---
Economic Regulation	---
Emergency Preparedness	---
Strategic Petroleum Reserves	22,801
SPR - Petroleum Account	93,147
EIA	---

* Includes $200 thousands in emergency funds.

Clean Coal Technology	334,272
Alt. Fuels Production	---
Total, Interior	468,220
Trust Funds	81,124
Special Foreign Currency	---
Payments to States	705
Total, Department of Energy	$604,047

QUESTIONS FROM SENATOR McCLURE

FY 88 BUDGET REQUEST

Question 5: Would you provide for the record a list of any assumptions in the President's proposed budget that require legislation? In each case would you --

a. provide a statement of purpose;

b. provide the proposed language (if available) or indicate if, or when, the Administration intends to transmit such language to the Congress; and

c. indicate whether, in the judgement of the Administration, such legislation would be sought from the Energy and Natural Resources Committee or as a rider on a appropriations act.

Answer: The President's budget request assumes the enactment of the following legislative initiatives:

1. The Department's Annual Appropriations

   - Authorize appropriations in FY 1988 and 1989 for (1) civilian energy programs, (2) national security programs, and (3) the naval petroleum reserves.

   - We plan to transmit the three authorization bills soon. I expect that, as usual, the civilian authorization will be referred to the Energy and Natural Resources Committee and the national security and naval petroleum reserve authorizations will be referred to the Armed Services Committee.

2. Sale of NPR-1 and NPR-3.

   ° The budget assumes sale of the Naval Petroleum Reserves at the end of 1988.

   ° A firm date for an authorization has not been established. When submitted, I would expect the proposal to be referred to the Committee on Armed Services.

3. Power Marketing Administration Debt Repayment Reform

   ° Establish fixed schedules for repayment of power marketing debt.

   ° A firm date to transmit this proposal has not been established. When submitted, I would expect it to be referred to the Committee on Energy and Natural Resources.

4. SEPA Divestiture Study

- Permit FY 1987 and FY 1988 study of possible transfer from Federal ownership of Southeastern Power Administration.

- A general provision for inclusion in an appropriations bill was submitted with the President's Budget Request. It appears on page II-21 of the FY 1988 Budget Appendix.

- A separate authorization proposal will be transmitted very shortly. I would expect it to be referred to the Committee on Energy and Natural Resources.

5. Repeal of Personnel Floors

   - Repeal the mandatory personnel floors established in law for the offices of the Assistant Secretaries for Fossil Energy and Conservation and Renewable Energy.

   - The Department submitted this proposal in its appropriations request for FY 1988. It appears as "Administrative Provisions, Department of Energy" at page I-J27 of the FY 1988 Budget Appendix.

6. Uranium Mill Tailings Remedial Action Program Extension

   - Extend the termination date of the program from March 6, 1990, to September 30, 1993.

- We plan to transmit this proposal in May of this year. I expect it to be referred to the Committee on Environment and Public Works, but referral to the Committee on Energy and Natural Resources Committee is possible.

QUESTIONS FROM SENATOR McCLURE
FY 88 BUDGET REQUEST

6. A new Federal Employee Retirement Systems (FERS) was authorized by Public Law 99-335.

Question 6A: What are the assumptions being used regarding the budgetary effect of this new system?

Answer: The assumptions used to estimate the budgetary effect of FERS on the Department of Energy were those provided to all agencies in OMB Bulletin No. 87-2, Attachment A "Assumptions for Calculation of Increased Retirement Costs".

The following basic assumptions were made:

- All Federal employees hired after 1983 are to be enrolled in FERS.
- Forty percent of the Federal employees currently enrolled in the Civil Service Retirement System (CSRS) will switch to FERS between July 1, 1987 and January 1, 1988.
- Half of the current CSRS enrollees who will switch, will do so July 1, 1987. The remaining half will switch December 31, 1987.
- On behalf of post-1983 hires the agency will contribute three percent of their salary.
- On behalf of the population switching to FERS from CSRS, the agency will contribute four percent of their salary.
- There would be no contribution made to FERS for those employees who remained in the CSRS.

QUESTIONS FROM SENATOR McCLURE
FY 88 BUDGET REQUEST

Question 6B: By appropriation account, what are the baseline and additional dollar costs?

Answer:

(Dollars in Thousands)

	FY 1988 Congressional Request	FY 1988 FERS Estimate (contained in Congressional Request)
Atomic Energy..................	$ 8,050,000	$ 7,092
General Science................	814,498	136
Energy Supply..................	1,914,710	2,718
Uranium Enrichment.............	1,070,000	207
Federal Energy Regulatory Commission..................	-900	4,306
Geothermal Resources...........	72	4
Alaska Power...................	3,026	109
Bonneville Power...............	---	7,868
Southeastern Power.............	27,400	90
Southwestern Power.............	16,648	425
Western Area Power.............	295,515	2,788
Departmental Administration...	166,133	8,755
Nuclear Waste Fund.............	500,000	1,201
Fossil Energy..................	168,900	1,635
Naval Petroleum................	159,700	245
Energy Conservation............	86,090	696
Strategic Petroleum Reserves..	270,181	419
Energy Information Administration..............	61,599	1,330
Economic Regulatory Administration..............	21,680	757
Emergency Preparedness........	6,206	225
Total......................	$13,631,458	$41,006

QUESTIONS FROM SENATOR McCLURE
FY 88 BUDGET REQUEST

Question 6C:	By appropriation account, what if any, effect on staffing levels is anticipated from the budget assumption that these additional costs will be absorbed?
Answer:	There is sufficient funding in the proposed budget to support the proposed staffing levels.

QUESTIONS FROM SENATOR MCCLURE

GRAMM-RUDMAN-HOLLINGS ACT ISSUES

Question 7: In the case of certain Federal programs and activities which receive off-setting fees, collections, etc., implementation of the Gramm-Rudman-Hollings Act would sequester budgetary resources on the basis of gross, rather than net, budgetary resources. Would you provide for the record --

a. a list of those programs or activities within your Department that receive such off-setting fees, collections, etc. (whether directly or subject to appropriations);

b. an indication if it is proposed to change the treatment of off-setting receipts;

c. a description of such program or activity, including an indication of whether such fees, collections, etc., are for services provided for others (either Federal agencies or others); and

d. an analysis of whether the sequester of such budgetary resources may inhibit the provision of such services provided for others.

Answer: Following is a list of Department of Energy programs that receive off-setting appropriation receipts:

89-0226 Uranium Enrichment Activities

89-0228 Departmental Administration

89-0212 Federal Energy Regulatory Administration

The Department's FY 1988 budget request proposes a change in the Uranium Enrichment account concerning the treatment of revenues. The current practice of using these revenues to directly offset the costs of the Uranium Enrichment program will be discontinued and all revenues will be deposited into the Treasury General Fund.

Receipts received in the Uranium Enrichment and Departmental Administration accounts are the direct result of products or services provided by the Department. In the case of the Federal Energy Regulatory Commission, offsetting revenues result from licensing fees collected by the Commission.

The Gramm-Rudman-Hollings Act reduces the obligational resources available for the activities generating off-setting revenues. In instances where the reductions are sufficiently large to diminish the Department's ability to produce products or perform services, there would be a corresponding decrease in the collections earned. In this situation, savings realized by the Gramm-Rudman-Hollings sequestration are offset by the resulting loss of revenues. For example, the Cost of Work for Others program in the Departmental Administration account provides a variety of products and services to both Federal and non-Federal customers on a cost reimbursable basis. Any reduction of obligational authority in this activity, regardless of how small, will result in a proportionate reduction of revenues earned thereby negating any savings.

QUESTIONS FROM SENATOR MCCLURE

Gramm-Rudman-Hollings Act Issues

Question 8(a): The fiscal year 1988 budget proposes that Uranium Enrichment appropriations be changed from a "net" to "gross" accounting basis. What is the justification for this change in policy regarding treatment of uranium enrichment revenues?

Answer: It is a general Administration policy to treat revenues as proprietary receipts and to deposit them directly in the Treasury and not to earmark the receipts for offset against programmatic costs. The change that is being proposed is in accordance with that general policy and, in addition, will clearly identify total program costs and total revenue receipts. This, in turn, will also help to improve one's ability to understand the overall financial status of the uranium enrichment program and show repayments to the Treasury.

QUESTIONS FROM SENATOR MCCLURE

Gramm-Rudman-Hollings Act Issues

Question 8(b):	What would be the effect of implementation of a sequester under the Gramm-Rudman-Hollings under "net" and "gross" accounting procedures? What would be the programmatic advantages and disadvantages?
Answer:	There are no differences in the accounting for a sequester under a "net" and "gross" basis, nor any programmatic advantages or disadvantages.

The gross amount of the Uranium Supply and Enrichment Activities appropriation comprises many program elements that are specifically identified and controlled in a "base table". This base table is established annually by the House and Senate appropriation committees and is published in a report that serves as the basis for determining program, project, and activity sequesters.

In FY 1986, funds were sequestered in the Uranium Supply and Enrichment Activities appropriation by each individual "base table" account. The offsetting revenues had no impact on the total amount of the sequester.

QUESTION FROM SENATOR McCLURE

PRESIDENTIAL APPOINTEE VACANCIES

Question 9: What positions within the Department that require confirmation are currently vacant or occupied by individuals in an acting capacity?

Answer: Three positions requiring Senate confirmation are currently vacant:

1. Assistant Secretary, Management and Administration
2. Director, Office of Minority Economic Impact.
3. Deputy Inspector General

QUESTIONS FROM SENATOR McCLURE

STUDY OF OIL IMPORTS ON DOMESTIC CRUDE OIL PRODUCTION

Question 10: When can the Committee expect to receive the study of the effects of oil imports on domestic crude oil production and refining capacity, as provided for in the Omnibus Budget Reconciliation Act of 1986?

Answer: The study of the effects of oil imports on domestic crude oil production and refining capacity required by the Omnibus Reconciliation Act of 1986 [Pub. L. 99-509], in section 3102(a), is being consolidated with the President's request for a review of energy related national security concerns. The Energy Information Agency has developed an analysis, as provided for in the Act, which will be incorporated into the consolidated study. The scope of the consolidated study is extensive and is expected to be issued in mid-March. Letters to Congress informing them of the delay of the reporting date called for in the Budget Reconciliation Act were sent on February 12, 1987.

QUESTIONS FROM SENATOR McCLURE

STATUS OF ECONOMIC REGULATORY ADMINISTRATION PRE-LITIGATION MATTERS

Question 11(a): On October 2, 1986, you wrote the conference committee on the Omnibus Budget Reconciliation Act of 1986, indicating that by December 31, 1986, the Economic Regulatory Commission would have initiated litigation, settled, decided to close out on the merits, or entered into a tolling agreement on all pre-litigation matters regarding oil pricing overcharges. Was that objective achieved? What is its current status?

Answer: Yes. The Economic Regulatory Administration has met these objectives. The present status is: there are now 334 cases in litigation; of these there are 7 firms in which we have tolling agreements or their equivalent and 7 firms in which PRO's have been drafted but not issued because they are in various stages of legal and policy review.

QUESTIONS FROM SENATOR McCLURE

STATUS OF ECONOMIC REGULATORY ADMINISTRATION PRE-LITIGATION MATTERS

Question 11(b): Would you provide for the record an updated status report on the ERA pre-litigation cases identified in your September 12, 1986, report to the House Committee on Energy and Commerce (identified in the conference report on the Omnibus Budget Reconciliation Act of 1986).

Answer: Attached is an updated status report on the ERA pre-litigation cases identified in the September 12, 1986, report to the House Committee on Energy and Commerce.

UPDATED STATUS REPORT ON ERA PRE-LITIGATION CASES

FIRM NAME	STATUS
1. AGWAY	Consent Order, 1/12/87
2. American Petrofina	PRO completed 12/30/86. Under legal review by Administrator (determination of whether PRO barred by earlier CO).
3. Anchor Gasoline Corp.	PRO issued 8/26/86.
4. Armada Petroleum	PRO = Proof of claim filed 12/5/86.
5. Ashland Oil	Closed, 1/5/87.
6. Avant Petroleum	Consent Order, 5/29/86.
7. Baker Chemical	Closed, 11/14/86.
8. Ball Marketing	Tolling Agreement Equivalent = Records in possession of Houston grand jury. Request made to U.S. Attorney to obtain documents.
9. Bi-Petro	Closed, 10/20/86.
10. Calumet	Consent Order, 5/15/86.
11. Carbonit Houston	Tolling Agreement Equivalent = Records in possession of Houston grand jury. Staff reviewing records to obtain requisite information.
12. Cashco Energy Corp.	Closed, 6/23/86.

FIRM NAME	STATUS
13. Chemical Terminal & Transport	Closed, 11/14/86.
14. Clark (class of purchaser)	PRO completed 10/21/86. Under policy review by Administrator (verification of financial condition).
15. Clark (foreign payments)	PRO completed 11/17/86. Under policy review by Administrator (verification of financial condition).
16. Clark (non-product costs & Marine transportation)	PRO completed 12/31/86. Under policy review by Administrator (verification of financial condition).
17. Concord Energy	PRO issued 10/21/86.
18. DeMenno Resources (crude sales)	PRO issued 12/31/86.
19. DeMenno Resources (processing agreement)	PRO issued 12/8/86.
20. DeNovo Oil & Gas	Closed, 6/20/86.
21. Diamond Shamrock	PRO completed 12/19/86. Under policy review by Administrator (verification of financial condition).
22. Doma Corp.	Closed, 10/09/86.
23. Exxon	Consent Order, 6/15/86.
24. Exxon (NGL)	Consent Order, 6/15/86.
25. Fosti	Closed, 11/03/86.
26. Gasco	Closed, 11/04/86.

FIRM NAME	STATUS
27. Gold King	Closed, 10/24/86.
28. Gulf Oil	Consent Order, 1/6/87.
29. Howell Industries	Tolling Agreement Equivalent - Staff reviewing company records to obtain requisite information.
30. Inexco	Consent Order, 12/31/86.
31. Intercontinental Oil	PRO completed 1/6/87.
32. Inter-North	PRO completed 2/20/87. Awaiting verification of calculations (legal analysis of information received from firm).
33. KENCO	PRO issued 11/6/86.
34. Kern County Refining	PRO completed 1/16/87.
35. King Petroleum	Tolling Agreement Equivalent - Documents in possession of grand jury. Agency seeking records from third parties.
36. LaJet	PRO issued 2/13/87.
37. McWhirter Oil Co.	PRO issued 11/20/86.
38. Merit Petroleum	PRO issued 12/22/86.
39. Mid-Tex	Closed, 9/5/86.
40. Morgan Petroleum	Closed, 9/23/86.

FIRM NAME	STATUS
41. Morrison Petroleum	PRO issued 10/27/86.
42. Mt. Airy	PRO issued 7/25/86.
43. Murphy	PRO issued 12/15/86.
44. Mutual Petroleum Marketing	PRO issued 9/8/86.
45. North American Petroleum (Lajet)	PRO issued 10/30/86.
46. Oasis Petroleum (product allocation)	PRO = Proof of claim filed 12/1/86.
47. Oasis Petroleum (crude sales)	PRO = Proof of claim filed 12/1/86.
48. Oklahoma Refining Co.	Tolling Agreement Equivalent = Subpoenas issued to company.
49. Pennzoil	PRO issued 7/29/86.
50. Phibro	Tolling Agreement Equivalent = Subpoenas issued to company.
51. Phillips Petroleum	PRO issued 1/16/87.
52. Port Petroleum	PRO issued 4/6/86.
53. Questor Petroleum	PRO issued 12/2/86.
54. Reinauer Petroleum	PRO issued 9/15/86.

FIRM NAME	STATUS
55. Sabine Corp.	Consent Order, 5/19/86.
56. San Joaquin Ref.	PRO = Case moved to Administrative Litigation, 9/1/86.
57. Scruggs Energy	PRO = Complaint filing in district court approved by Depatment of Justice.
58. Shell	Consent Order, 12/16/86.
59. Southwestern Ref.	PRO issued 12/15/86.
60. Sun Oil	Closed, 9/1/86.
61. Tampimex	PRO issued 12/19/86.
62. Tesoro (refinery pricing)	PRO completed 12/24/86. Under policy review by Administrator (verification of financial condition).
63. Tesoro (tie-in)	PRO completed 12/31/86. Under policy review by Administrator (verification of financial condition).
64. Tesoro (crude resales)	PRO completed 12/31/86. Under policy review by Administrator (verification of financial condition).
65. Texaco (NGL)	PRO completed 2/3/87. Under policy review by Administrator (verification of financial condition).
66. Texaco (tie-in)	PRO completed 12/19/86. Under policy review by Administrator (verification of financial condition).
67. Texas American	PRO issued 9/30/86.
68. Texas Asphalt & Ref.	PRO issued 9/26/86.

FIRM NAME	STATUS
69. Texas Energy Reserve	PRO issued 2/28/86.
70. The Crude Company	PRO issued 1/9/87.
71. Thetis Energy Corp.	PRO issued 4/25/86.
72. Uni Oil	Closed, 1/6/87.
73. Valentine Construction	PRO issued 10/27/86.
74. West Coast Oil	PRO = Case moved to Administrative Litigation, 9/1/86.
75. Western Refining	Tolling Agreement Equivalent = Records in possession of grand jury. Request made to U.S. Attorney to obtain documents.
76. Weston Petroleum	Closed, 10/27/86.
77. Wickett Ref.	PRO issued 12/31/86.

QUESTIONS FROM SENATOR McCLURE

12. The Omnibus Budget Reconciliation Act of 1986 provided for the identification and disbursement of petroleum overcharge and restitutionary amounts.

Question 12a: What are the budget assumptions in the budget regarding the disbursement of such monies to the Federal government and others?

Answer: Title III, Subtitle A of the Omnibus Budget Reconciliation Act of 1986 is also known as the Petroleum Overcharge Distribution and Restitution Act of 1986 (PODRA). The PODRA establishes the priority of use on any petroleum overcharge funds being held in escrow by the U.S. Treasury. The first priority of use would be to "...persons or classes of persons injured by any actual or alleged violation" in accordance with Subpart V regulations (10 C.F.R. Part 205). Assuming that excess funds exist after legitimate claims are satisfied, the second priority of use "...shall be the smaller of--

A) $200,000,000 minus the amount of Federal funds appropriated for energy conservation programs for such fiscal year; or

B) the amount determined, under subsection (c) of PODRA section 3003, to be the excess amount for such fiscal year." The third priority of use "shall be deposited by the Secretary of the Treasury into the general fund of the Treasury." The President's FY 1988 budget request did not assume that any "excess" monies would be available for deposit into the general fund of the Treasury since the amount was unknown at the time of the preparation of the FY 1988 proposed budget. The determination of the amount of possible excess funds is not required to be made until 45 days after the start of FY 1988.

QUESTIONS FROM SENATOR MCCLURE

ESCROW ACCOUNT EXCESS/STRIPPER WELL

Question 12: The Omnibus Budget Reconciliation Act of 1986 provided for the identification and disbursement of petroleum overcharge restitutionary amounts.

Question 12b: Would you provide for the record a copy of the Secretary's determination (and justification thereof) of excess amounts to be used for indirect restitution pursuant to section 3003(c) of the Omnibus Budget Reconciliation Act of 1986?

Answer: Attached is a copy of the Federal Register notice published by the Department on December 5, 1986 which contains the requested information.

DEPARTMENT OF ENERGY

Office of Hearings and Appeals

Determination of Excess Petroleum Violation Escrow Funds

AGENCY: Office of Hearings and Appeals, Department of Energy.

ACTION: Notice of Determination of Excess Amount of Petroleum Violation Escrowed Amounts Pursuant To the Petroleum Overcharge Distribution and Restitution Act of 1986.

SUMMARY: The Petroleum Overcharge Distribution and Restitution Act of 1986 requires the Secretary of Energy to determine the amount held in escrow that is in excess of the amount needed to make restitution to injured parties and to meet other commitments. Notice is hereby given that $134,066,670.82 of the escrowed amounts is determined to be excess funds and will be made available to state governments for use in specified energy conservation programs.

FOR FURTHER INFORMATION CONTACT: Thomas O. Mann, Deputy Director, Roger Klurfeld, Assistant Director, Office of Hearings and Appeals, United States Department of Energy, 1000 Independence Ave., SW., Washington, DC 20585, (202) 252-2094 (Mann); 252-2383 (Klurfeld).

SUPPLEMENTARY INFORMATION: On October 21, 1986, the President signed into law the Omnibus Budget Reconciliation Act of 1986, Pub. L. No. 99-509. Title III of that Act contains the Petroleum Overcharge Distribution and Restitution Act of 1986 (hereinafter referred to as PODRA). PODRA establishes certain procedures explained below for the disbursement of funds collected by the Department of Energy pursuant to the Emergency Petroleum Allocation Act of 1973 (hereinafter referred to as the EPAA) or the Economic Stabilization Act of 1970 (hereinafter referred to as the ESA) as restitution for actual or alleged violations of such Acts.

Generally, PODRA requires the Department of Energy, through the Office of Hearings and Appeals, to conduct proceedings under 10 CFR Part 205, Subpart V to refund moneys to persons injured by violations of the EPAA and the ESA. In addition, the Secretary of Energy must determine annually the amount of oil overcharge funds that will not be required to refund moneys to injured parties in these Subpart V proceedings and make it available to state governments for use in four energy conservation programs. PODRA, section 3003(c). The Secretary has delegated those responsibilities to the Office of Hearings and Appeals.

Notice is hereby given that based on the best currently available information, $134,066,670.82 is in excess of the amount that is estimated to be needed to make restitution to injured persons.

To arrive at that figure, a review of all accounts in which moneys covered by PODRA are deposited has been completed. Funds subject to distribution under PODRA in the current fiscal year are those funds in the DOE Deposit Fund Escrow Account derived from alleged violations of refined petroleum product or natural gas liquids regulations. PODRA, section 3002. As of September 30, 1986, the Office of Hearings and Appeals (OHA) had jurisdiction over $397,203,362.61 subject to PODRA, and the Economic Regulatory Administration (ERA) had jurisdiction over any small, remaining amount.

The Office of Hearings and Appeals has employed the following methodology to determine the amount in excess of that required for direct restitution. For each account affected by PODRA, we have determined the principal and accrued interest earned as of the end of fiscal year 1986. Keeping in mind that provision of the legislation which directs that primary consideration "(be given) to assuring that at all times sufficient funds (including a reasonable reserve) are set aside for making [direct] restitution . . .," for certain major refiner proceedings where refund claims may not yet be filed, we have reserved 75 percent of the funds for direct restitution to injured persons. For proceedings in which all claims have been considered or in which no claims have been filed, no reserve is necessary. In those proceedings in which refund claims are pending, we have on a case-by-case basis examined the remaining claims, and established reserves sufficient to pay the entire amount of all claims. The amount of those reserves also includes all refunds actually made by the OHA since September 30, 1986. In those proceedings where escrowed amounts have been designated, prior to the enactment of PODRA, for disbursement to specific persons or classes of persons as indirect restitution (i.e. subjected to "second-stage" proceedings), those amounts have been excluded from the determination of "excess" amounts in accordance with section 3002(c)(3) of PODRA.

No other commitments are reflected in those reserves. In this connection, all accounting adjustments needed to reflect the Department's 1983 distribution of $200 million to the States under the Warner Amendment were made in July 1986.

The reserves for direct restitution in each case have been totaled, and the total amount of reserves is $263,136,691.79. That amount was subtracted from the total escrow account equity allocated to refined products and natural gas liquids. The remainder, $134,066,670.82, is the amount in fiscal year 1987 that is "in excess" of the amount that will be needed to make restitution to injured persons. Appendix A sets forth for each case within the jurisdiction of the Office of Hearings and Appeals the foregoing information. Appendix B reflects information supplied by the Economic Regulatory Administration regarding cases subject to PODRA under its jurisdiction.

Accordingly, $134,066,670.82 will be transferred to a separate account within the United States Treasury and made available to the states for use in four energy conservation programs in the manner prescribed by the Act.

Dated: December 1, 1986.

George B. Breznay,

Director, Office of Hearings and Appeals.

BILLING CODE 6450-01-M

Appendix A

OHA Name of Case	CaseNmbr	Consent Order No.	Equity Attributable To Products	Estimated Reserve For Claimants	Available For Indirect Restitution
ALEMANY CHEVRON SERVICE CENTER	KEF-0023	999K90059Z	$3,036.50	$3,036.50	$0.00
ALLIED MATERIALS CORP & EXCEL	KEF-0280	660S00302Z	$1,129,643.79	$129,644.00	$999,999.79
AMERICAN PACIFIC INTERNATIONAL	KEF-0316	940C00112Z	$301,868.32	$0.00	$301,868.32
AMINOIL, U.S.A., INC.	KEF-0007	740V01239Y	$15,452,316.81	$15,452,316.81	$0.00
AMTEL, INC.	KEF-0027	720H00552Z	$2,308,064.80	$1,000,000.00	$1,308,064.80
ANADARKO PROD. (PANHANDLE)	KEF-0083	710V02007Y	$23,026.39	$23,026.39	$0.00
APACHE CORPORATION	KEF-0230	710V03010Z	$788,878.33	$377,063.00	$411,815.33
APCO OIL CORPORATION	KEF-0008	660S00633Y	$1,058,158.27	$529,079.00	$529,079.27
APPALACHIAN FLYING SERVICE INC	KEF-0028	432R00435Z	$37,112.35	$0.00	$37,112.35
ARAPAHO PETROLEUM, INC	KEF-0231	710V03019Z	$275,908.65	$275,908.65	$0.00
ARKANSAS LOUISIANA GAS COMPANY	KEF-0201	641S00255Z	$2,546,081.83	$2,546,081.83	$0.00
ARKANSAS VALLEY PETROLEUM	KEF-0029	660H18655Z	$44,832.74	$44,832.74	$0.00
ARKLA CHEMICAL CORPORATION	KEF-0030	641H00364Z	$88,717.37	$18,500.00	$70,217.37
ARMOUR OIL COMPANY	KEF-0031	930H00062Z	$31,190.64	$0.00	$31,190.64
ATLANTA PETROLEUM PRODUCTION	KEF-0233	6D0V00318Z	$37,578.56	$0.00	$37,578.56
ATLANTIC RICHFIELD COMPANY	KEF-0591	RARH00081Z	$50,693,530.23	$38,020,147.67	$12,673,382.56
AYERS OIL COMPANY	KEF-0363	720H00533Z	$248,807.18	$0.00	$248,807.18
A-1 ARCO	KEF-0509	999K90042Z	$7,850.00	$0.00	$7,850.00
A. TARRICONE INC.	KEF-0177	240H00291Z	$646,945.81	$130,665.20	$516,280.61
BAR LTD.	KEF-0034	320H00043Z	$440,733.07	$440,733.07	$0.00
BAYOU STATE OIL/IDA GASOLINE	KEF-0202	641S00396Z	$753,301.05	$0.00	$753,301.05
BAYSIDE FUEL OIL DEPOT CORP.	KEF-0035	240H00448Z	$80,869.21	$0.00	$80,869.21
BEACON OIL COMPANY	KEF-0203	910S00008Z	$4,314,130.37	$2,207,872.30	$2,106,258.07
BELRIDGE OIL COMPANY	KEF-0234	940V00121Z	$543,115.02	$0.00	$543,115.02
BEN BOSSEE'S CHEVRON SERVICE	KEF-0512	999K90031Z	$12,254.46	$0.00	$12,254.46
BETTS, KEN (PINOLE,MONT.,BUBB)	KEF-0514	999K90048Z	$89,111.26	$0.00	$89,111.26
BILL PENDERGAST & SON CHEVRON	KEF-0543	999K90012Z	$12,011.20	$0.00	$12,011.20
BLEX OIL COMPANY	KEF-0038	733H02022Z	$9,328.05	$0.00	$9,328.05
BOB'S CHEVRON SERVICE	KEF-0515	999K90038Z	$12,590.39	$0.00	$12,590.39
BOSWELL OIL COMPANY	KEF-0040	533H00178Z	$180,511.73	$0.00	$180,511.73
BOX, CLOYCE K.	KEF-0041	600H00037Z	$961,392.82	$961,392.82	$0.00
BRECKENRIDGE GASOLINE COMPANY	KEF-0235	710V03020Z	$219,668.37	$0.00	$219,668.37
BUD'S EXXON SERVICE	KEF-0511	999K90038Z	$4,876.11	$0.00	$4,876.11
BUTLER PETROLEUM CORP.	KEF-0046	340H00470Z	$23,454.39	$0.00	$23,454.39
CAR WASH SERVICES	KEF-0516	999K90047Z	$8,410.62	$0.00	$8,410.62
CENTRAL OIL CO., INC.	KEF-0047	110H00308Z	$66,364.16	$0.00	$66,364.16
CHAMPLAIN OIL CO., INC.	KEF-0048	134K00121Z	$76,026.81	$0.00	$76,026.81
CHIP'S CHEVRON SERVICE	KEF-0517	999K90011Z	$23,570.89	$0.00	$23,570.89
CIBRO GASOLINE CORPORATION	KEF-0049	240H00486Z	$135,161.17	$0.00	$135,161.17
CITY SERVICE INC.	KEF-0050	810H00326Z	$418.57	$0.00	$418.57
CONLO SERVICE INC.	KEF-0051	240H00506Z	$3,143.01	$0.00	$3,143.01
CONOCO, INC.	KEF-0010	RCOA00081Y	$3,822,738.07	$1,911,369.00	$1,911,369.07
CONSUMERS OIL COMPANY	KEF-0055	930H00097Z	$228,923.88	$228,923.88	$0.00
COUGAR OIL INC.	KEF-0057	620H00284Z	$26,324.69	$0.00	$26,324.69
CP MARKETING CHEVRON CAR WASH	KEF-0519	999K90022Z	$7,547.18	$0.00	$7,547.18
CP MARKETING CHEVRON CAR WASH	KEF-0518	999K90032Z	$7,636.62	$0.00	$7,636.62
CRANSTON OIL SERVICE CO., INC.	KEF-0029	111K00173Z	$64,028.43	$64,028.43	$0.00
CROW CANYON SHELL	KEF-0520	999K90023Z	$5,706.26	$0.00	$5,706.26
CROWN CENTRAL PETROLEUM CORP.	KEF-0044	RCMA00008Z	$7,945,566.51	$5,959,174.88	$1,986,391.63
CRYSTAL OIL COMPANY	KEF-0206	641S00098Z	$1,636,019.60	$654,408.00	$981,611.60
CRYSTAL OIL COMPANY	KEF-0241	810V00249Z	$2,058.96	$0.00	$2,058.96
C.K. SMITH & COMPANY, INC.	KEF-0172	111H00028Z	$623,713.30	$623,713.30	$0.00

OHA Name of Case	CaseNmbr	Consent Order No.	Equity Attributable To Products	Estimated Reserve For Claimants	Available For Indirect Restitution
DALCO PETROLEUM INC.	HEF-0060	640T00642Z	$467,346.77	$467,346.77	$0.00
DIETRICH ORINDA SHELL	HEF-0522	999K90053Z	$4,642.45	$0.00	$4,642.45
DON SKILLING CHEVRON SERVICE	HEF-0547	999K90021Z	$20,215.30	$0.00	$20,215.30
DORCHESTER GAS CORPORATION	HEF-0559	670S00113Z	$4,603,693.20	$2,300,000.00	$2,303,693.20
DOUG MYERS CHEVRON SERVICE	HEF-0523	999K90035Z	$7,460.32	$0.00	$7,460.32
EAGLE PETROLEUM CO.	HEF-0243	710V03025Z	$193,691.16	$60,905.38	$132,785.78
EARL'S BROADMOOR TEXACO	HEF-0566	640Z00357Z	$7,543.06	$3,017.22	$4,525.84
EARTH RESOURCES CO.	HEF-0205	431S00341Z	$1,354,026.09	$434,207.75	$919,818.34
EASTERN OF NEW JERSEY, INC.	HEF-0065	240H00441Z	$372,784.72	$372,784.72	$0.00
EASTERN PETROLEUM CORP.	HEF-0066	800H00163Z	$36,795.28	$0.00	$36,795.28
EDDY REFINING CO./KEY OIL CO.	HEF-0206	400S00203Z	$279,600.50	$0.00	$279,600.50
EDG, INC.	KEF-0003	930S00173Z	$1,712,311.63	$1,712,311.63	$0.00
ELIAS OIL COMPANY	KEF-0022	412H00105Z	$115,238.56	$115,238.56	$0.00
ELM CITY FILLING STATIONS, INC	HEF-0067	150H00026Z	$234,224.30	$234,224.30	$0.00
EMPIRE GAS CORPORATION	KEF-0048	720T00521Z	$976,371.88	$976,371.88	$0.00
EVITT OIL COMPANY	KEF-0020	400H00221Z	$65,595.99	$65,595.99	$0.00
E B. LYNN OIL COMPANY	HEF-0064	320H00326Z	$46,927.95	$629.00	$46,298.95
E M. BAILEY DISTRIBUTING CO.	HEF-0033	433H00476Z	$12,245.36	$0.00	$12,245.36
FARSTAD OIL COMPANY	HEF-0567	850H00018Z	$84,122.74	$33,649.10	$50,473.64
FERRELL COMPANIES, INC.	HEF-0587	710T00075Z	$114,466.37	$45,778.00	$68,688.37
FIELD OIL CO., INC.	HEF-0071	810H00312Z	$6,389.74	$0.00	$6,389.74
FINE PETROLEUM CO. INC.	HEF-0072	460H00072Z	$48,486.78	$0.00	$48,486.78
FRANKS PETROLEUM INC.	HEF-0208	641S00421Z	$183,838.94	$0.00	$183,838.94
F.O. FLETCHER, INC.	HEF-0074	010H00034Z	$160,271.86	$0.00	$160,271.86
GARY ENERGY CORPORATION	HEF-0245	810V00003Z	$551,210.97	$551,210.97	$0.00
GAS SYSTEMS INC.	HEF-0246	6D0V00013Z	$75,046.91	$0.00	$75,046.91
GCO MINERALS COMPANY	HEF-0570	MGCP00001Z	$998,487.72	$250,000.00	$748,487.72
GENERAL EQUITIES, INC.	HEF-0078	110H00527Z	$130,985.23	$0.00	$130,985.23
GEORGE'S CIRCLE SERVICE	HEF-0525	999K90006Z	$1,249.11	$0.00	$1,249.11
GETTY OIL COMPANY	HEF-0209	RGEA00001Z	$48,418,826.10	$36,314,120.00	$12,104,706.10
GIBBS INDUSTRIES, INC	HEF-0079	110H00496Z	$67,123.59	$67,123.59	$0.00
GLASER GAS INC.	HEF-0080	810E00015Z	$18,782.96	$0.00	$18,782.96
GLOVER, LAWRENCE B.	HEF-0081	270T00071Z	$89,123.16	$0.00	$89,123.16
GOOD HOPE REFINERIES INC.	HEF-0211	150S00154Z	$2,180,791.01	$221,999.00	$1,958,792.01
GOODMAN OIL COMPANY	HEF-0082	000H00411Z	$15,542.66	$0.00	$15,542.66
GRAPEVINE SHELL	HEF-0526	999K90011Z	$19,405.10	$0.00	$19,405.10
GRAPEVINE TEXACO	HEF-0527	999K90043Z	$18,786.21	$0.00	$18,786.21
GULF OIL CORPORATION	HEF-0590	RGFA00001Z	$46,749,523.02	$35,062,142.27	$11,687,380.75
GULF OIL CORP.	DFF-0001	800R00007Y	$38,050,624.84	$33,000,000.00	$5,050,624.84
GULL INDUSTRIES, INC.	HEF-0086	010H00036Z	$257,443.70	$257,443.70	$0.00
GULL INDUSTRIES, INC.	HEF-0084	010H00337Z	$84,087.48	$84,087.48	$0.00
GULL INDUSTRIES, INC.	HEF-0085	800S00001Z	$1,296,827.41	$972,620.56	$324,206.85
HAL ABEL'S CHEVRON	HEF-0510	999K90005Z	$9,192.85	$0.00	$9,192.85
HAMILTON BROTHERS PETROLEUM CO	HEF-0249	710V03026Z	$414,052.85	$0.00	$414,052.85
HARV'S SACRAMENTO CAR WASH	HEF-0528	999K90049Z	$4,990.30	$0.00	$4,990.30
HICKS OIL & HICKS GAS CO, INC.	HEF-0091	570E00128Z	$86,583.31	$34,633.00	$51,950.31
HOWARD DEROUEN SHELL	HEF-0521	999K90034Z	$6,846.93	$0.00	$6,846.93
HOWARD OIL COMPANY	KEF-0008	240H00280Z	$17,796,789.56	$13,347,592.17	$4,449,197.39
HOWELL OIL CORP. / QUINTANA	HEF-0212	610S00068Z	$3,640,654.49	$1,456,262.00	$2,184,392.49
HUNT INDUSTRIES	HEF-0253	710V03006Z	$104,155.19	$0.00	$104,155.19
HUSKY OIL COMPANY OF DELAWARE	HEF-0213	820S00007Z	$648,031.70	$324,016.00	$324,015.70
H.C. LEWIS OIL CO.	HEF-0115	340H00493Z	$69,419.49	$42,645.00	$26,774.49

OHA Name of Case	CaseNmbr	Consent Order No	Equity Attributable To Products	Estimated Reserve For Claimants	Available For Indirect Restitution
IDEAL GAS CO., INC	REF-0093	831T00012Z	$78,879.64	$0.00	$78,879.64
INDIAN OIL CO., INC.	REF-0095	332B00243Z	$54,630.17	$0.00	$54,630.17
INLAND USA, INC.	REF-0096	720B00563Z	$636,827.60	$318,414.00	$318,413.60
INMAN OIL CO	REF-0097	720B00557Z	$25,281.43	$16,247.00	$9,034.43
JAY OIL COMPANY	REF-0101	6C1B00209Z	$57,866.10	$57,866.10	$0.00
JERRY BULLARD CHEVRON	REF-0515	999K90026Z	$37,809.51	$0.00	$37,809.51
JERRY'S SHELL SERVICE	REF-0530	999K90015Z	$5,361.70	$0.00	$5,361.70
JIMMY'S GAS STATIONS, INC	REF-0102	132B00170Z	$11,113.50	$0.00	$11,113.50
JIM'S TEXACO SERVICE	REF-0531	999K90044Z	$244.31	$0.00	$244.31
KELLER OIL COMPANY, INC.	REF-0103	720B00598Z	$47,814.52	$47,814.52	$0.00
KENT OIL & TRADING COMPANY	REF-0578	940X00232Z	$73,954.44	$73,954.44	$0.00
KEN'S CHEVRON STATION	REF-0532	999K90027Z	$13,868.60	$0.00	$13,868.60
KEY OIL COMPANY	REF-0106	430B00477Z	$95,757.34	$38,302.94	$57,454.40
KEY OIL CO., INC	REF-0105	420B00271Z	$120,675.32	$0.00	$120,675.32
KIESEL COMPANY	REF-0107	720B00560Z	$6,717.96	$0.00	$6,717.96
KIM'S MOBIL	REF-0533	999K90008Z	$4,379.69	$0.00	$4,379.69
KING & KING ENTERPRISES	REF-0108	710B02580Z	$135,152.28	$53,384.80	$81,767.48
L & L OIL CO., INC	REF-0111	640B00360Z	$7,904.84	$0.00	$7,904.84
LA GLORIA OIL AND GAS CO	REF-0210	641S00234Z	$1,137,178.24	$852,883.68	$284,294.56
LAKES GAS CO., INC	REF-0112	310E00134Z	$10,956.12	$4,382.00	$6,574.12
LAZAR SUPER SHELL	REF-0535	999K90048Z	$2,101.91	$0.00	$2,101.91
LEATHERS OIL CO., INC	REF-0113	000B00426Z	$15,863.79	$15,863.79	$0.00
LEE GARRETT CHEVRON	REF-0540	999K90057Z	$6,582.77	$6,582.77	$0.00
LEE KREGER'S CHEVRON	REF-0534	999K90009Z	$3,753.69	$0.00	$3,753.69
LEESE OIL COMPANY	REF-0583	000B00410Z	$27,064.03	$0.00	$27,064.03
LEONARD E. BELCHER, INC	REF-0586	151B00003Z	$455,523.85	$4,000.00	$451,523.85
LEO'S WINSTEAD'S INC	REF-0114	710B01336Z	$125,974.41	$57,301.00	$68,673.41
LEWTEX OIL & GAS CORP	REF-0033	6D0V00020Y	$473,473.56	$380,000.00	$93,473.56
LINCOLN LAND OIL CO	REF-0116	720B00573Z	$19,067.41	$0.00	$19,067.41
LITTLE AMERICA REFINING CO	REF-0215	830S00012Z	$880,522.16	$29,029.00	$851,493.16
LOCKHEED AIR TERMINAL INC	REF-0117	930B00198Z	$568,167.54	$568,167.54	$0.00
LOMBARD CHEVRON SERVICE	REF-0536	999K90017Z	$3,486.26	$0.00	$3,486.26
LOWE OIL COMPANY	REF-0118	710B01378Z	$81,852.06	$61,389.00	$20,463.06
LUCIA LODGE ARCO	REF-0119	910K00133Z	$31,428.75	$12,571.50	$18,857.25
LUKE BROTHERS INC	REF-0120	660E00075Z	$15,430.79	$6,172.32	$9,258.47
MACMILLAN RING-FREE OIL CO	REF-0506	960S00053Z	$1,022,993.85	$130,315.26	$892,678.59
MALCO INDUSTRIES INC	REF-0121	530B00435Z	$97,282.16	$10,120.22	$87,161.94
MAPCO, INC	REF-0258	740V01246Z	$1,339,657.58	$229,214.16	$1,110,443.42
MARATHON PETROLEUM COMPANY	REF-0021	RMNA00001Z	$12,570,114.48	$9,427,585.86	$3,142,528.62
MARINA CHEVRON SERVICE CENTER	REF-0537	999K90020Z	$3,922.88	$0.00	$3,922.88
MARINE PETROLEUM / MARS OIL	REF-0122	720B00567Z	$323,893.69	$220,991.81	$102,901.88
MARION CORPORATION	REF-0216	421S00117Z	$13,300.60	$0.00	$13,300.60
MARLEN L. KNUTSON DIST. INC	REF-0110	000B00422Z	$41,428.50	$41,428.50	$0.00
MARTIN OIL COMPANY	REF-0124	910T00120Z	$257,001.36	$102,800.56	$154,200.80
MARTIN OIL SERVICE, INC	REF-0123	570B00200Z	$371,182.24	$100,000.00	$271,182.24
MCCARTY OIL CO	REF-0126	330B00438Z	$29,249.94	$0.00	$29,249.94
MCCLEARY OIL CO., INC	REF-0127	310B00439Z	$111,617.09	$44,646.84	$66,970.25
MCCLURE OIL COMPANY	REF-0009	860E00081Z	$38,929.08	$15,571.63	$23,357.45
MCCLURE'S SERVICE STATION	REF-0128	340B00486Z	$5,024.95	$2,009.98	$3,014.97
MIDWAY OIL CO	REF-0129	570B00057Z	$50,909.56	$0.00	$50,909.56
MIDWEST INDUSTRIAL FUELS, INC	REF-0130	520B00063Z	$30.28	$0.00	$30.28
MISSOURI TERMINAL OIL CO	REF-0131	720B00562Z	$47,976.62	$11,994.16	$35,982.46

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MOBIL OIL CORPORATION	KEF-0508	RMOA00001Z	$32,372,748.16	$19,000,000.00	$13,372,748.16
MOORE TERMINAL AND BARGE CO	KEF-0132	641H00052Z	$88,457.82	$0.00	$88,457.82
MOUNTAIN FUEL SUPPLY COMPANY	KEF-0263	710V03003Z	$1,848,120.55	$0.00	$1,848,120.55
MOWRY CHEVRON	KEF-0538	999K90025Z	$22,055.66	$0.00	$22,055.66
MOYLE PETROLEUM CO.	KEF-0133	810H00300Z	$18,570.28	$570.00	$18,000.28
MUSTANG FUEL CORPORATION	KEF-0611	710V03023Y	$6,314,001.08	$0.00	$6,314,001.08
NATIONAL PROPANE CORP	KEF-0135	270T00002Z	$41,578.19	$16,631.28	$24,946.91
NAVAJO REFINING COMPANY	KEF-0217	672S00136Z	$781,152.00	$80,106.26	$701,045.74
NELSON'S SERVICE CENTER, INC.	KEF-0539	999K90050Z	$23,549.14	$0.00	$23,549.14
NIELSEN OIL & PROPANE, INC	KEF-0136	733H02005Z	$28,066.84	$0.00	$28,066.84
NORTHEAST PETROLEUM INDUSTRIES	KEF-0137	110H00334Z	$568,808.73	$568,808.73	$0.00
NORTHEAST PETROLEUM INDUSTRIES	KEF-0580	6C0X00241Z	$1,542,328.87	$1,542,328.87	$0.00
NORTHEAST PETROLEUM, INC.	KEF-0138	120H00491Z	$1,698,011.33	$679,200.53	$1,018,810.80
NORTHWEST PIPELINE CORP.	KEF-0264	710V03015Z	$723,176.51	$723,176.51	$0.00
OCEANA TERMINAL CORP., ET AL	KEF-0142	240H00361Z	$506,712.56	$202,685.02	$304,027.54
ONEOK, INC.	KEF-0571	740V01406Z	$2,110,869.89	$1,000,000.00	$1,1[illegible]89
O'CONNELL OIL CO	KEF-0141	110H00513Z	$17,045.21	$6,818.08	$10,227.13
PACER OIL CO. OF FLORIDA, INC	KEF-0143	612H00172Z	$55,659.89	$22,263.96	$33,395.93
PACIFIC NORTHERN OIL	KEF-0144	010H00028Z	$37,026.74	$30,035.43	$6,991.31
PACIFICA SHELL & MANOR SHELL	KEF-0540	999K90033Z	$6,402.52	$0.00	$6,402.52
PANHANDLE EASTERN (CENTURY)	KEF-0041	710V02006Y	$384,363.67	$60,000.00	$324,363.67
PARADE COMPANY	KEF-0493	733V02035Z	$1,047,007.26	$0.00	$1,047,007.26
PARKTOWN CHEVRON	KEF-0541	999K90028Z	$45,405.07	$0.00	$45,405.07
PARMAN OIL CORPORATION	KEF-0145	430H00219Z	$88,940.12	$35,576.05	$53,364.07
PASCO PETROLEUM CO., INC	KEF-0146	060H00442Z	$186,830.23	$78,314.00	$108,516.23
PAUL PROVOST CHEVRON	KEF-0542	999K90041Z	$5,856.93	$0.00	$5,856.93
PEDERSEN OIL, INC	KEF-0147	000H00418Z	$14,239.29	$14,239.29	$0.00
PERTA OIL MARKETING CORP.	KEF-0148	930H00088Z	$212,185.99	$212,185.98	$0.01
PETERSON PETROLEUM INC.	KEF-0149	240H00491Z	$55,682.60	$13,149.24	$42,533.36
PETROLANE-LOMITA GASOLINE CO.	KEF-0269	940V00195Z	$3,998,053.68	$65,745.30	$3,932,308.38
PETROLEUM HEAT & POWER CO. INC	KEF-0150	110H00530Z	$668,284.89	$334,142.45	$334,142.44
PETROLEUM SALES/SERVICE INC.	KEF-0151	340H00488Z	$95,020.35	$14,253.05	$80,767.30
PETRO-LEWIS CORP.	KEF-0267	840T00200Z	$5,927,177.50	$0.00	$5,927,177.50
PLACID OIL COMPANY	KEF-0007	6D0S00005Z	$1,741,500.59	$1,741,500.59	$0.00
PLAQUEMINES OIL SALES CORP.	KEF-0039	640H00174Z	$605,786.71	$605,786.71	$0.00
PLATEAU, INC.	KEF-0272	733V02013Z	$235,367.32	$26,938.38	$208,428.94
POINT LANDING INC.	KEF-0152	640H00175Z	$160,394.93	$116,826.52	$43,568.41
PORT OIL COMPANY INC.	KEF-0153	420H00278Z	$30,500.26	$6,100.05	$24,400.21
POST PETROLEUM CO.	KEF-0154	910H00145Z	$17,552.77	$2,564.48	$14,988.29
POWER PAK CO., INC.	KEF-0155	810H10452Z	$108,380.60	$108,380.60	$0.00
POWER TEST PETROLEUM DIST.	KEF-0042	240H00499Z	$617,644.14	$617,644.14	$0.00
PRIDE REFINING, INC.	KEF-0218	6D0S00036Z	$657,919.48	$263,168.00	$394,751.48
PRONTO GAS CO.	KEF-0273	6D0V00024Z	$23,910.80	$0.00	$23,910.80
PROPANE GAS & APPLIANCE CO.	KEF-0156	420E00206Z	$61,961.15	$12,392.23	$49,568.92
PYROFAX GAS CORPORATION	KEF-0157	641T00099Z	$4,551,613.67	$3,493,404.00	$1,058,209.67
QUAKER STATE OIL REFINING CORP	KEF-0219	340S00352Z	$6,236,236.85	$2,494,495.00	$3,741,741.85
QUARLES PETROLEUM, INC.	KEF-0158	800H00903Z	$50,687.41	$12,671.85	$38,015.56
RAMOS OIL CO., INC.	KEF-0159	910H00144Z	$25,637.75	$10,254.96	$15,382.79
RED TRIANGLE OIL CO.	KEF-0162	910H00112Z	$36,051.62	$0.00	$36,051.62
RESOURCES EXTRACTION & PROCESS	KEF-0574	740V01409Z	$147,774.08	$147,774.08	$0.00
REYNOLDS OIL CO.	KEF-0164	810H00324Z	$4,521.81	$1,808.72	$2,713.09
RICHARDSON AYERS JOBBER, INC.	KEF-0166	640H00354Z	$165,448.75	$16,544.87	$148,903.88

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RIVERSIDE OIL, INC	KEF-0494	550H00310Z	$25,008.74	$0.00	$25,008.74
ROBERT J. HEALD SHELL	KEF-0529	999K90016Z	$1,250.28	$0.00	$1,250.28
R V WHITNER THERMOGAS CO	KEF-0178	530E00176Z	$89,348.70	$0.00	$89,348.70
SABER ENERGY, INC	KEF-0220	6D0S00017Z	$1,237,641.91	$1,237,641.91	$0.00
SANESCO OIL CO	KEF-0170	930H00306Z	$81,274.49	$0.00	$81,274.49
SANTA MARIA CHEVRON	KEF-0544	999K90019Z	$12,163.88	$0.00	$12,163.88
SAUVAGE GAS COMPANY, INC	KEF-0024	710H06008Z	$418,130.25	$418,130.25	$0.00
SHARON HEIGHTS SHELL	KEF-0545	999K90019Z	$1,380.74	$0.00	$1,380.74
SHELTER CREEK CHEVRON	KEF-0546	999K90014Z	$9,482.12	$0.00	$9,482.12
SID RICHARDSON CARBON & GAS	KEF-0022	6D0V00025Y	$813,717.48	$813,717.48	$0.00
SIGMOR CORPORATION	KEF-0581	6D0S00091Z	$754,109.19	$41,836.00	$712,273.19
SOUTH HAMPTON REFINING	KEF-0222	6E0S00002Z	$556,363.08	$147,202.21	$409,145.87
SOUTHERN UNION COMPANY	KEF-0223	673S00336Z	$317,164.14	$200,000.00	$117,164.14
STEVE BORNER CHEVRON SERVICE	KEF-0549	999K90046Z	$4,327.85	$0.00	$4,327.85
STINNES INTER OIL INC	KEF-0174	240H00519Z	$656,302.99	$124,258.30	$532,044.69
ST. JAMES RESOURCES CORP	KEF-0100	110H00487Z	$362,011.91	$85,103.01	$276,908.90
SUBURBAN PROPANE GAS CORP	KEF-0038	733V02010Z	$1,854,773.78	$1,854,773.78	$0.00
SUDS MACHINE CHEVRON CAR WASH	KEF-0551	999K90013Z	$31,101.73	$0.00	$31,101.73
SWIFTY OIL COMPANY INC	KEF-0175	550H00337Z	$68,148.94	$0.00	$68,148.94
TENNECO OIL COMPANY	KEF-0073	BTNA00001Y	$771,524.49	$200,000.00	$571,524.49
TERRY McGOVERN S SHELL	KEF-0552	999K90018Z	$7,850.56	$0.00	$7,850.56
TEXAS GAS & EXPLORATION	KEF-0274	6E0V00015Z	$288,779.46	$23,063.38	$265,716.08
THORNTON OIL CORPORATION	KEF-0497	533H00309Z	$400,481.75	$0.00	$400,481.75
THRIFTYMAN, INC	KEF-0018	610H10449Z	$143,700.92	$143,700.92	$0.00
TIGER OIL CO	KEF-0180	000H00428Z	$3,306.55	$0.00	$3,306.55
TIPPERARY CORP	KEF-0277	670V00323Z	$619,922.90	$0.00	$619,922.90
TOTAL PETROLEUM, INC	KEF-0113	340S00227Z	$3,021,304.77	$2,265,978.58	$755,326.19
TRISLER OIL COMPANY	KEF-0019	530H00449Z	$160,037.29	$160,037.29	$0.00
TRUE COMPANIES, THE	KEF-0557	733V02019Z	$1,471,500.86	$1,471,500.86	$0.00
UNION PARK SERVICE	KEF-0553	999K90026Z	$11,781.18	$0.00	$11,781.18
UNION TEXAS PETROLEUM CORP	KEF-0009	6E0S00075Y	$637,677.31	$258,547.00	$379,130.31
UNION TEXAS PETROLEUM CORP	KEF-0224	6E0S00023Z	$810,824.56	$0.00	$810,824.56
UTG, INC	KEF-0026	641S00123Z	$473,786.79	$473,786.79	$0.00
U S OIL COMPANY	KEF-0185	570H00207Z	$79,441.03	$0.00	$79,441.03
U S A PETROLEUM, INC	KEF-0500	960S00093Z	$1,370,835.16	$75,000.00	$1,295,835.16
VALE VISTA CHEVRON SERVICE	KEF-0554	999K90037Z	$3,090.49	$0.00	$3,090.49
WALLACE & WALLACE FUEL OIL CO	KEF-0190	240H00399Z	$20,467.72	$0.00	$20,467.72
WALT FRIEDMAN CHEVRON	KEF-0524	999K90007Z	$6,829.88	$0.00	$6,829.88
WALT'S DANVILLE CHEVRON INC	KEF-0555	999K90010Z	$10,316.60	$0.00	$10,316.60
WELLER OIL, INC	KEF-0584	240H00071Z	$77,304.59	$30,922.00	$46,382.59
WILLIS DISTRIBUTING COMPANY	KEF-0197	340H00480Z	$90,689.62	$0.00	$90,689.62
WINSTON REFINING COMPANY	KEF-0589	6D0S00006Z	$124,804.44	$124,804.44	$0.00
WITCO CHEMICAL CORPORATION	KEF-0227	240S00054Z	$7,417,946.64	$3,000,000.00	$4,417,946.64
WORLD OIL COMPANY	KEF-0005	960S00104Z	$2,256,903.69	$2,256,903.69	$0.00
YE OLDE PUMP HOUSE	KEF-0556	999K90029Z	$11,468.58	$0.00	$11,468.58
ZIA FUELS (G G C CORP)	KEF-0076	673H00346Z	$29,465.38	$0.00	$29,465.38
TOTALS			$397,203,362.61	$263,136,691.79	$134,066,670.82

BILLING CODE 6450-01-C

Appendix B

November 25, 1986.

Memorandum for George B. Breznay,
Director, Office of Hearings and Appeals
From: Marshall A. Staunton, Administrator,
Economic Regulatory Administration
Subject: ERA Input for the PODRA Section 3003(c) report

We have completed our review of the funds held in escrow as of September 30, 1986, which had not been petitioned under Subpart V. The purpose of this review was to identify the amount held in escrow that is in excess of the amount that will be needed to make restitution to persons or classes of persons in accordance with Section 3003 (b)(1) of the Petroleum Overcharge Distribution and Restitution Act of 1986. Once the required payment into an escrow account is completed, a Subpart V petition is filed with your office. Thus, payment into the escrow accounts that we examined has not yet been completed. Many of these cases are in bankruptcy or have been referred to the Department of Justice for enforcement. Since the extent of possible claims and amounts that will be available to satisfy the claims are not known at this time, it would not be prudent to consider any of these funds excess as described above.

[FR Doc. 86-27324 Filed 12-4-86; 8:45 am]

BILLING CODE 6450-01-M

ENVIRONMENTAL PROTECTION AGENCY

[OPP-180710; FRL-3124-5]

Receipt of Application for an Emergency Exemption From Wyoming To Use Strychnine; Solicitation of Public Comment

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of receipt.

SUMMARY: EPA has received a public health exemption request from the Wyoming Department of Agriculture (hereafter referred to as "Applicant") to use strychnine alkaloid (CAS 57-24-0) in egg baits for control of rabid skunks. EPA, in accordance with 40 CFR 166.24, is required to issue a notice of receipt and, time permitting, to solicit public comment before making the decision whether to grant the exemption.

DATE: Comments must be received on or before December 22, 1986.

ADDRESS: Three copies of written comments, bearing the identification notation "OPP-180710" should be submitted by mail to:

Information Services Section, Program Management and Support Division (TS-757C), Office of Pesticide Programs, Environmental Protection Agency, 401 M Street SW., Washington, DC 20460

In person, bring comments to: Room 236, CM #2, 1921 Jefferson Davis Highway, Arlington, VA.

Information submitted in any comment concerning this notice may be claimed confidential by marking any part or all of that information as "Confidential Business Information." Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR Part 2. A copy of the comment that does not contain Confidential Business Information must be provided by the submitter for inclusion in the public record. Information not marked confidential may be disclosed publicly by EPA without prior notice. All written comments filed pursuant to this notice will be available for public inspection in Rm. 236, Crystal Mall No. 2, 1921 Jefferson Davis Highway, Arlington, VA, from 8 a.m. to 4 p.m., Monday through Friday, except legal holidays.

FOR FURTHER INFORMATION CONTACT:

By mail: Jack E. Housenger, Registration Division (TS-767C), Office of Pesticide Programs, Environmental Protection Agency, 401 M Street SW., Washington, DC 20460

Office location and telephone number: Room 716C, Crystal Mall 2, 1921 Jefferson Davis Highway, Arlington, VA, (703-557-1806).

SUPPLEMENTARY INFORMATION. Pursuant to section 18 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 U.S.C. 136p), the Administrator may, at his discretion, exempt a State or Federal agency from any registration provision of FIFRA if he determines that emergency conditions exist which require such exemption.

The Applicant has requested the Administrator to issue a public health exemption for the use of strychnine in eggs to control rabid skunks. Wyoming was granted a similar exemption for this use last year. Emergency exemptions for this use have been authorized to Wyoming and/or Montana for the past 12 years.

In 1972, EPA cancelled the registrations of strychnine products used for predator control, including the use of strychnine to control skunks (37 FR 5718). This public health exemption request is therefore subject to EPA's Subpart D regulations, 40 CFR 164.130 to 164.133, in addition to the regulations at 40 CFR Part 166 governing the issuance of exemptions under section 18. Subpart D provides that any application for a registration or a pesticide use that has been cancelled shall be considered a petition for reconsideration of the prior cancellation order. The Administrator will determine that reconsideration is warranted if he finds that:

(1) The Applicant has presented substantial new evidence which may materially affect the prior cancellation or suspension order and which was not available to the Administrator at the time he made his final cancellation or suspension determination; and

(2) Such evidence could not, through the exercise of due diligence, have been discovered by the parties to the cancellation or suspension proceeding prior to the issuance of the final order. (40 CFR 164.131(a).)

Ordinarily, if the Administrator finds that the substantial new evidence test in 40 CFR 164.131 is met, the Subpart D rules require a formal hearing to determine whether a modification of the cancellation order is justified (40 CFR 164.131(c)).

The Administrator has previously determined that substantial new evidence does exist in connection with the registration request and last year's emergency exemption request, as published in the **Federal Register** of June 13, 1986 (51 FR 21617). Accordingly, a hearing to reconsider whether to modify the prior cancellation order to permit the use of strychnine for controlling skunks to suppress rabies in areas where rabid animals have been found was held on October 7, 1986, as announced in the **Federal Register** of August 8, 1986 (51 FR 28623). Currently, the question of whether or not a field hearing will be held is being decided. The date on which an Initial Decision will be made by the Administrative Law Judge is January 13, 1987, unless a time extension is requested and approved.

The Agency would consider issuing another emergency exemption for this use of strychnine if by the expiration date of the current emergency exemption (November 6, 1986), strychnine has not been registered for this use, the criteria in § 164.133 are met, an emergency condition is determined to exist, and the States have met their commitment to generate section 3 data in a timely fashion (51 FR 21622).

The Applicant has applied, under section 3 of FIFRA, for registration of strychnine in egg baits to control rabid skunks. The Applicant in conjunction with the State of Montana is currently generating the data necessary to support the registration of this use of strychnine.

The Applicant has requested the use of strychnine for the purpose of suppressing local populations of skunks, the main carrier of rabies, thereby reducing the opportunity for exposure of humans, domestic animals, and susceptible wild species to rabies. The

QUESTIONS FROM SENATOR McCLURE

12. The Omnibus Budget Reconciliation Act of 1986 provided for the identification and disbursement of petroleum overcharge and restitutionary amounts.

Question 12c: Has the Department provided for the disbursement of such excess amounts to the Treasury and others? If so, would you provide for the record a table indicating the recipients and the amounts received.

Answer: The Department has identified as excess $134,066,670.82, in accordance with the Omnibus Budget Reconciliation Act of 1986, Title III, the Petroleum Overcharge Distribution and Restitution Act of 1986. While no funds have been disbursed to date, it is expected that disbursements will begin within the next several months. For the funds to be disbursed, the States must submit their energy conservation plans and those plans must subsequently be approved by the Department. The State plans may include four energy conservation programs: (1) Weatherization Assistance Program (WAP), (2) Institutional Conservation Program (ICP), (3) State Energy Conservation Program (SECP), and (4) Energy Extension Service (EES). In FY 1987 there will be no disbursement of funds to the U.S. Treasury since the amount of excess funds will go entirely to the States. The anticipated State distribution on a pro-rata FY 1986 base is displayed in the attached table.

Attachment

PETROLEUM OVERCHARGE DISTRIBUTION AND RESTITUTION ACT OF 1986
(PODRA)
(DOLLARS IN THOUSANDS)

	STATES	WEATHER-IZATION	ICP	SECP	EES	TOTAL
1	ALABAMA	$894	$343	$159	$68	$1,464
2	ALASKA	$935	$138	$56	$38	$1,167
3	AMERICAN SOMOA	---	$80	$42	$35	$157
4	ARIZONA	$412	$276	$120	$58	$866
5	ARKANSAS	$849	$241	$145	$55	$1,290
6	CALIFORNIA	$2,528	$1,265	$632	$239	$4,664
7	COLORADO	$2,157	$384	$129	$60	$2,730
8	CONNECTICUT	$1,365	$387	$139	$62	$1,953
9	DELAWARE	$358	$122	$61	$40	$581
10	DISTRICT OF COLUMBIA	$414	$126	$60	$40	$640
11	FLORIDA	$372	$657	$283	$119	$1,431
12	GEORGIA	$1,001	$437	$198	$82	$1,718
13	GUAM	---	$86	$44	$36	$166
14	HAWAII	$162	$128	$66	$43	$399
15	IDAHO	$971	$171	$68	$43	$1,253
16	ILLINOIS	$5,770	$1,259	$409	$133	$7,571
17	INDIANA	$2,744	$613	$258	$82	$3,697
18	IOWA	$2,319	$405	$138	$60	$2,922
19	KANSAS	$1,100	$296	$144	$55	$1,595
20	KENTUCKY	$1,856	$381	$172	$66	$2,475
21	LOUISIANA	$473	$338	$251	$71	$1,133
22	MAINE	$1,599	$220	$73	$44	$1,936
23	MARYLAND	$1,284	$432	$171	$71	$1,958
24	MASSACHUSETTS	$3,164	$654	$196	$84	$4,098
25	MICHIGAN	$6,382	$1,080	$319	$115	$7,896
26	MINNESOTA	$4,772	$627	$189	$70	$5,658
27	MISSISSIPPI	$603	$246	$113	$57	$1,019
28	MISSOURI	$2,539	$537	$181	$77	$3,334
29	MONTANA	$1,132	$167	$65	$42	$1,406
30	NEBRASKA	$1,235	$243	$92	$48	$1,618
31	NEVADA	$336	$147	$70	$42	$595
32	NEW HAMPSHIRE	$847	$189	$70	$43	$1,149
33	NEW JERSEY	$2,660	$754	$312	$98	$3,824
34	NEW MEXICO	$809	$176	$84	$46	$1,115
35	NEW YORK	$9,696	$1,791	$531	$186	$12,204
36	NORTH CAROLINA	$1,562	$492	$207	$85	$2,346
37	NORTH DAKOTA	$1,220	$165	$59	$40	$1,484
38	NORTHERN MARIANAS	---	$78	$42	$35	$155
39	OHIO	$5,366	$1,127	$394	$128	$7,015
40	OKLAHOMA	$1,005	$315	$147	$61	$1,528
41	OREGON	$1,292	$277	$135	$58	$1,762
42	PENNSYLVANIA	$6,254	$1,209	$340	$137	$7,940
43	PUERTO RICO	---	$306	$105	$63	$474

PETROLEUM OVERCHARGE DISTRIBUTION
AND RESTITUTION ACT OF 1986
(PODRA)
(DOLLARS IN THOUSANDS)

	STATES	WEATHER-IZATION	ICP	SECP	EES	TOTAL
44	RHODE ISLAND	$642	$171	$75	$43	$931
45	SOUTH CAROLINA	$641	$281	$130	$62	$1,114
46	SOUTH DAKOTA	$1,079	$155	$59	$41	$1,334
47	TENNESSEE	$1,699	$430	$189	$74	$2,392
48	TEXAS	$1,294	$1,058	$625	$158	$3,135
49	TRUST TERRITORIES*	---	---	$44	$36	$80
50	UTAH	$938	$225	$85	$47	$1,295
51	VERMONT	$717	$144	$60	$39	$960
52	VIRGIN ISLANDS	---	$81	$49	$36	$166
53	VIRGINIA	$1,690	$497	$196	$81	$2,464
54	WASHINGTON	$1,996	$427	$137	$70	$2,630
55	WEST VIRGINIA	$1,302	$242	$133	$52	$1,729
56	WISCONSIN	$3,782	$635	$205	$75	$4,697
57	WYOMING	$526	$126	$63	$39	$754
		$96,743	$23,837	$9,519	$3,968	$134,067

* Now known separately as the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Pilau.

QUESTIONS FROM SENATOR McCLURE

SECTION 3006(a) OF PODRA

Question 12(d):	The Omnibus Budget Reconciliation Act of 1986 provided for the identification and disbursement of petroleum overcharge restitutionary amounts. Would you provide for the record a copy of the Report on Receipts and Disbursements required pursuant to section 3006(a) of the Omnibus Budget Reconciliation Act of 1986?
Answer:	Attached is a copy of the Report on Receipts and Disbursements required pursuant to section 3006(a) of the Omnibus Budget Reconciliation Act of 1986 which was sent to Congress on December 19, 1986.

OIL OVERCHARGE COLLECTIONS AND DISBURSEMENTS AS OF OCTOBER 21, 1986

(In Millions of Dollars)

Oil Overcharge Collections			5,640
Add Interest Earned on Escrow Accounts			349
Less Disbursements:			
Dollar Equivalent of Oil into SPR		(51)	
Deposits into U.S. Treasury		(160)	
Direct Payments to Purchasers		(489)	
1980 Distribution to Charities		(3)	
Stripper Settlement Intervenors		(528)	
Diamond Shamrock Claimants		(18)	
OHA Subpart V Claimants		(186)	
States:			
Exxon Distribution	(2,098)		
Warner Amendment	(200)		
1980 Distribution to Missouri	(1)		
Direct Payments	(35)		
OHA Subpart V	(34)		
Stripper Settlement	(676)		
OHA Crude Oil Funds	(51)		
Diamond Shamrock	(49)		
		(3,144)	
Total Disbursements			(4,579)
Total in Escrow Accounts			1,410

Note: Detailed information is available concerning specific items and could be provided on request.

QUESTIONS FROM SENATOR McCLURE

SECTION 3006(b) OF PODRA

Question 12(e):	The Omnibus Budget Reconciliation Act of 1986 provided for the identification and disbursement of petroleum overcharge restitutionary amounts. Would you provide for the record a copy of the Report on Collection of Certain Deficiency Funds required pursuant to section 3006(b) of the Omnibus Budget Reconciliation Act of 1986?
Answer:	This report is not yet available. The first of these reports must be prepared for FY 1987. Therefore drafting of this report will begin at the end of FY 1987.

QUESTION FROM SENATOR McCLURE

IG REPORT REGARDING PETROLEUM OVERCHARGE AUDITS

Question 13: Would you provide for the Record the report from the DOE's Inspector General regarding the status of petroleum overcharge audits. What are DOE's comments on the report's conclusions?

Answer: Two copies of IG audit report DOE/IG-0222, "Supporting Documentation and Control over Economic Regulatory Administration Cases," are provided for the record. The report includes a summary of management comments. Also provided for the record is a copy of the official Departmental Position. The Office of Inspector General is currently making a follow-up review of the process for documenting and controlling ERA cases. This effort is in the Official Draft Report status and the draft report has been provided to the Economic Regulatory Administration for comment.

DOE F 1325.8
(12-84)

United States Government **Department of Energy**

memorandum

DATE APR 07 1986

REPLY TO ATTN OF MA-31.2

SUBJECT Departmental Position on Inspector General Report IG-0222

TO Inspector General

As required by DOE Order 2320.2, Establishment of Departmental Position on Inspector General Reports, attached is the Departmental position on Inspector General (IG) report IG-0222, "Supporting Documentation and Control Over Economic Regulatory Administration Cases."

Your comments on the Departmental position which are required by the Order should be provided to me through the Office of the Controller within 15 days of the date of this correspondence.

Martha O. Hesse
Assistant Secretary
Management and Administration

Attachment

cc w/Attachment:
MA-2.2, Lenora Lewis
MA-303, McKinley Bryant
HG-20, Thomas Mann

DEPARTMENTAL POSITION ON INSPECTOR GENERAL REPORT

Report on Supporting Documentation and Control over Economic Regulatory Administration Cases

AUDIT REPORT DOE/IG-0222

1. Documentation of Case Processing

IG Recommendation

Establish a board to make advance reviews and provide recommendations on all proposed settlements on pending cases. Members of the board should be drawn from an appropriate cross-section of ERA to afford the benefit of their knowledge of the specific case involved and their expertise in adjudicating the facts and issues.

Departmental Position

Non-concur. We do not believe a formal Settlement Board should be established at headquarters or in the field. At present, the Special Counsel is the only individual authorized to settle cases in excess of $10 million. In reaching settlements, he acts on the advice and comments provided by auditors and attorneys who are involved in the case. Similarly, the Solicitor and the field Directors, rely on the advice and comments of auditors and attorneys on their respective staffs or auditors and attorneys made available to them. We do not believe that the initiation of a formal board would provide a greater level of review or expertise than exists at present.

IG Recommendation

Develop and implement written procedures for documenting the bases for conclusions reached. This documentation should be made part of the official record.

Departmental Position

Concur. We will adopt procedures for improving documentation for cases which are settled or otherwise closed. These procedures will also provide for successive higher levels of review, with appropriate sign-offs, to ensure that the appropriate checks and balances exist in settling these cases in the public interest.

2. Control Over Case Processing

IG Recommendation

Direct his staff to account for the location of all case files on the case tracking system, including the specific files that we have repeatedly requested.

Departmental Position

Concur. We are searching for the two missing case files.

IG Recommendation

Establish time standards for the various processing stages and develop an exception reporting system to highlight deviations.

Departmental Position

Concur. Our case tracking system, in place since Spring 1985, enables easy identification of cases which are progressing at less than adequate speed. The differences in complexity among cases and the vastly different administrative courses taken by them prior to closure (e.g., settlement meetings or subpoenas for information in some but not all cases) would render fixed processing norms, inappropriate. However, a separate system has been established and is generated by the Office of the Solicitor. The report advises of specific case problems, delays, and exceptions.

DOE/IG-0222

U.S. Department of Energy
Office of Inspector General

Release Date:
November 19, 1985

Report on

Supporting Documentation and Control Over Economic Regulatory Administration Cases

IG

DOE F 1325.8
(4-84)

United States Government — Department of Energy

memorandum

DATE: November 4, 1985

REPLY TO ATTN OF: IG-1

SUBJECT: INFORMATION: Report on "Supporting Documentation and Control Over Economic Regulatory Administration Cases"

TO: The Secretary

Background

The attached copy of the subject report is being sent to inform you of our findings and recommendations and to provide you an opportunity to comment.

Discussion

We reviewed the Economic Regulatory Administration's (ERA) handling of enforcement cases and the operation of its manual and computerized case-tracking systems. Our review objectives were to determine whether ERA was (1) documenting the files to show the rationale for its decisions, (2) processing cases expeditiously, and (3) properly controlling and accounting for cases.

Our review consisted of a judgmental sample of 255 enforcement cases selected from a universe of cases that originated in Headquarters and the Philadelphia and Atlanta field offices. Both field offices were closed after decontrol and their open cases transferred to Headquarters or to other field locations. In formulating our conclusions, we reviewed documentation in ERA's files and discussed the cases with current and former ERA officials.

A recent ERA reorganization has resulted in some program and reporting improvements, but ERA still needs to improve its enforcement case control and tracking. ERA was unable to locate and provide us with 29 of the 177 case files we asked for; had not documented adequately 24 of the remaining files to show how decisions were reached; and had experienced long delays in processing many of its cases. The delays are especially significant because at least 81 parties with alleged violations of $985 million have filed for bankruptcy.

Comments were received from the Director, Office of Enforcement Programs, who questioned the basis for selection of cases and felt that the report dealt with historical data and did not sufficiently place matters in perspective. A summary of management's comments and our response are included in the report.

James R. Richards

James R. Richards
Inspector General

Attachment

cc: Acting Administrator, ERA

Question 14: The so-called *Stripper Well Agreement* provides for a set aside of 20 percent of crude oil overcharge funds for the satisfaction of claims of injured parties in all other court and administrative proceedings involving overcharge funds. Reportedly, since its initial disbursement of *Stripper Well* funds in August 1986, the Department's Office of Hearings and Appeals (OHA) has identified over $400 million of escrowed overcharge funds which are available for immediate distribution after the 20 percent set aside for injured claimants.

Question 14a: What is the Department's policy regarding when such funds are to be distributed to the Federal Treasury and the other parties to the Agreement?

Answer: The initial distribution under the Agreement has been received by the Department and has been deposited into the DOE's Escrow Account. Those funds now amount to approximately $407 million. Under the Agreement there are a number of contingencies under which the Federal government would be required to pay a substantial portion of the $407 million to others. These matters are currently in litigation, and the Department intends to transfer the funds to the Treasury as soon as the matters in litigation are resolved.

In addition to this initial distribution, there is approximately $652 million in crude oil funds presently in escrow subject to the Agreement. The

Department is required to follow the refund procedures set forth in its regulations at 10 C.F.R. Part 205, Subpart V in distributing these funds. OHA has proposed procedures for approximately $500 million of these funds. Once final procedures are issued in these cases, approximately $300 million will be available for distribution to the Federal government. The remaining funds will be subject to refund procedures shortly thereafter.

Question 14b: Why has OHA failed to distribute this $400 million in escrowed funds? I understand $300 million of these funds would actually go to the U.S. Treasury, because of previous arrangements with other parties to the Agreement?

Answer: The initial $407 million distribution to the Federal government will be deposited into the Treasury when contingencies against the funds no longer exist. The OHA is unable to distribute the remaining crude oil funds until final Subpart V procedures are issued for the relevant settlement funds. It is correct that approximately $300 million will be available for the federal treasury from consent order funds on which proposed procedures have been issued.

Question 14c: I understand that OHA will have another $500 million available for distribution within the next few months. What plans does the Department or OHA have for a timely disbursement of the Federal portion of these funds to the U.S. Treasury?

Answer: The $500 million figure mentioned in your question apparently refers to crude oil overcharge amounts for which OHA has proposed procedures. Refund procedures for these funds were suggested by OHA in an August 1986 Federal Register notice and published for comment. Final procedures governing the distribution of those funds should be issued shortly.

Question 15: The so-called Stripper Well Agreement provides: first, for a set aside of 20 percent of crude oil overcharge funds for the satisfaction of claims of injured parties in all other court and administrative proceedings involving overcharge funds; and, second, for an *immediate distribution* of one-half of the remaining 80 percent to the U.S. Treasury.

The Department has yet to make such a distribution (a) in the court case of *Getty Oil Co. v. Department of Energy*, No. 77-434 (D. Del.), which involves a total of $177 million, or (b) in the administrative proceedings of *In the Matter of Shell Oil Company*, No. RSHA0001, which involves a total of $160 million in crude oil funds. In *Getty*, DOE has requested that the funds first go to OHA, and in *Shell*, I understand DOE is considering first sending the $160 million to OHA.

Question 15a: Does the Department intend to direct these funds to OHA before providing for their distribution pursuant to the Agreement?

Answer: Section IV.B.4 of the Settlement Agreement requires the Department to utilize the Subpart V refund process for all crude oil overcharges that come under its control. The Subpart V refund regulations specifically provide for notice to and comment from the public prior to payment of any funds. After considering any comments and issuing final refund procedures, the practice of the Department prior to the Settlement Agreement was to pay all claimants before making funds available to the states or federal goverment for indirect restitution. Section IV.B.6 of the Settlement

Agreement modified this practice and requires the Department to disburse funds to the states and federal government while awaiting completion of payments to claimants. The Department intends to distribute funds pursuant to these provisions of the Settlement Agreement.

Question 15b: What plans does the Department have for a timely and immediate distribution to the U.S. Treasury of such funds as the Agreement requires? Why has the Department failed to do so up to this point?

Answer: The funds in the Getty case are currently being held in an escrow account under the jurisdiction of the United States District Court for the District of Delaware. The Department has notified the court of the settlement, and stated its view that the agreement requires 20 percent of the funds initially to be reserved and made available for claims under Subpart V regulations. DOE's position is supported by potential claimants who are seeking to intervene in the Getty litigation. The states have opposed DOE's position, claiming that the entire amount should be disbursed immediately without any consideration of claims by injured persons. The court has indicated that it intends to rule first on the requested intervention before deciding how to disburse the funds.

With respect to the Shell matter, the Department has indicated that it intends to follow Subpart V regulations for distributing the funds that would be obtained if the proposed Shell consent order is finalized. This means that 80 percent of the Shell funds would be available for immediate distribution to the state and federal governments once final Subpart V refund procedures are established under the governing regulations, and 20 percent would initially be reserved for claims.

Question 15c: Why is it proposed to use OHA as an intermediary for the 80 percent which is required to be disbursed immediately to the U.S. Treasury and the States? Recent experience indicates that OHA has been less than timely in carrying out the requirements of the Settlement Agreement?

Answer: The Department's regulations codified at 10 C.F.R. Part 205, Subpart V specifically provide for notice to and comment from the public prior to payment of any crude oil overcharges. The Settlement Agreement does not change this procedure. The only time provisions placed on OHA by the Settlement

Agreement was the issuance of an order disbursing at least $100 million to the Federal and State governments. That order was issued in August 1986.

Question 16: The Stripper Well Settlement Agreement provides for up to 20 percent of crude oil overcharge funds to be reserved for the satisfaction of claims of parties which can prove actual injury due to overcharges. The U.S. Government and the States and Territories are entitled to the remainder because they represent the interests of the public and those who were injured but are not able to prove injury.

Paragraph IV.B.1 of the Settlement Agreement provides that "in administrative (Subpart V) proceedings involving Alleged Crude Oil Violations, OHA will continue to require that each claimant must affirmatively demonstrate that it has been injured by the alleged violations and that it should therefore receive a refund." To effectuate this requirement the Department issued a "Statement of Modified Restitutionary Policy" (MSRP) in July, 1986 which states that "All applicants for refunds pursuant to the Department's Subpart V regulations must demonstrate injury as a result of any alleged crude oil violations." MSRP at 9-10.

Nevertheless, OHA has indicated in several recent Subpart V proceedings that it does not plan to require claimants to affirmatively demonstrate injury, but rather it intends to adopt a presumption of injury.

If this change in policy were to be adopted, the Federal Government would be at risk of losing a major portion, if not the entire share, of overcharge funds to which it is entitled under the Agreement. While the amount of crude oil overcharge funds at stake in each individual proceeding may be relatively small, the cumulative effect of OHA's adoption of a presumption of injury in all Subpart V proceedings could be disastrous.

For example, one attorney who has filed claims in several Subpart V proceedings on behalf of only 22 corporations claims to be entitled to 2.5 percent of all crude oil overcharge funds. Moreover, it is corporations rather than individuals who would benefit from OHA's proposal.

Question 16a: What is the basis for this proposed change in policy? Is it supported by the Administration?

Answer: There has been no change of policy. The Department's primary restitutionary policy with respect to oil overcharge matters is to pay injured parties, i.e. to do direct restitution. To achieve this, refund procedures must take account of the complexity of oil overcharge proceedings, difficulties in actually proving an overcharge, passage of time, and difficulties in locating records and relevant market data. For this reason, the Department's Subpart V refund regulations expressly provide for the use of presumptions of the type benefitting end-users. The Settlement Agreement itself took account of these factors when it did not require any party receiving a refund from one of the Stripper Well escrow accounts to prove injury. It also provided for a Subpart V claims process for injured parties who did not receive refunds from one of the escrows supervised by the court in the Stripper Well case. The Settlement Agreement states that it should not be construed to amend the Subpart V refund regulations and contains an explicit reference to OHA precedent in which refund applicants who were end-users could prove injury in a simplified manner by proving the amount of their petroleum purchases.

Question 16b: What is its estimated effect on the amount of overcharge funds that otherwise would go to the Federal Treasury under current policy?

Answer: The Department cannot estimate the value of the claims that may be received in the future, or their impact on the U.S. Treasury.

Question 16c: What is OHA's authority for this proposed policy change which could deny the U.S. Treasury its share of crude oil overcharge funds by allowing claims filed by parties which cannot affirmatively demonstrate injury?

Answer: As explained above, there has been no policy change.

Question 16d: What policy does the Department plan to follow in reaching final decisions in these cases?

Answer: The Department intends to proceed expeditiously to reach final decisions in these cases.

QUESTIONS FROM SENATOR MCCLURE

Multimegawatt Terrestrial Powerplant

Question 17(a): Last October, when you were in Idaho Falls for the dedication of the FAST Facility at the Idaho National Engineering Laboratory, you announced the selection of the prime contractor for the Title I design of the Multimegawatt Terrestrial Power (MTP) Project. Not only is the MTP a viable option for providing a reliable, secure and safe power source for some of our country's most vital military installations and systems, but it could be helpful in getting the power industry back on its feet. What is the status of this project?

Answer: On February 26, DOE was advised by the Air Force that they will agree to proceed with the preliminary design phase (Title I) of the MTP project and plan to release their matching FY 1987 funds to DOE after notification of the appropriate Congressional commmittees.

DOE is currently developing its negotiating position in anticipation of entering into a contract with Westinghouse for design of the MTP.

QUESTIONS FROM SENATOR MCCLURE

Multimegawatt Terrestrial Powerplant

Question 17(b):	If there are difficulties with this project, please explain.
Answer:	There have been delays in the release of FY 1987 Air Force funds but, as indicated in the answer to the previous question, we believe this difficulty has been overcome. There is a prescribed decision point at the end of the preliminary design (Title I) phase whether to continue the MTP project based on the results of the design work in matching mission needs, refined cost estimates, and the overall budget picture at the time.

QUESTIONS FROM SENATOR MCCLURE

Multimegawatt Terrestrial Powerplant

Question 17(c): Please provide history of DOE's involvement in this DOE/DOD project, and current details of DOE's effort in the MTP.

Answer:

- o FY 1979-1985: Studies by AF, DOE, GAO, FEMA, and actual experimental power outages on military installations confirm energy vulnerability and adverse impact of energy disruptions/outages on military operations in CONUS and abroad--energy security becomes a top DOD and AF priority.

- o January 1983: DOE-DOD Defense Energy Task Force (DETF) established to evaluate defense energy security needs and recommend joint programs.

- o August 1983: DOE briefed Energy Security Working Group of Defense Energy Policy Council on DETF findings and proposed programs.

- o November 1983: DOE briefed AF Logistics & Engineering (LE) and Office of Assistant Secretary of Defense (Atomic Energy) on DETF findings and recommended investigation of nuclear power for secure energy.

Answer 17(c)
(continued):

- o August 1984: MOA signed by AF/LE (General Marquez) and DOE Assistant Secretary for Nuclear Energy (Dr. Brewer) for design concepts, first-cut cost evaluation, and issues assessment (i.e., licensing, environment, safety, security, operation, maintenance, etc.).

- o November 1984: DOE awarded contracts to six U.S. nuclear vendors to develop nuclear powerplant design concepts responsive to design criteria developed by AF and DOE.

- o May 1985: DOE and AF (HQ AFESC/DEB) evaluate six concepts.

- o October 1985: Based on above evaluation, recommendation made by AFESC to AF/LE to proceed to next step of joint program--design, value engineering, and detailed cost analysis of competitively selected systems. Independent cost analysis performed.

- o November 1985: Briefings on MTP given to various AF organizations by LE staff. AF budgeted $3 million in FY 1986 and programmed $5 million in FY 1987 to co-support preliminary design with DOE. (DOE funding of

Answer 17(c)
(continued): $3 million in FY 1986 and $3 million in FY 1987 has been separately appropriated.]

- March 1986: RFP sent by DOE, with AF approval, to six nuclear contractors for fixed-price proposals to design, construct, test, and startup a 10 MWe nuclear powerplant.

- Summer 1986: DOE-AF Liaison Committee established to assure agency coordination. Two meetings held; needed decisions identified.

- October 1986: Review of MIP program by Air Force and DOE resulted in concurrence to proceed through preliminary design.

- October 1986: DOE announced selection of Westinghouse Electric Corporation for first plant preliminary (Title I) design.

- December 1986: A revised MOA and the 2807 Notification to Congress to spend design funds sent by AF staff to Office of the Assistant Secretary of the Air Force for Research, Development, and Logistics (RD&L) for review and approval.

QUESTIONS FROM SENATOR McCLURE

BORON NEUTRON CAPTURE THERAPY

Question 18: An operating reactor at the INEL, the Power Burst Facility has the potential for saving over 4,000 lives a year in the U.S., that are now lost to brain cancer using a technology called Boron Neutron Capture Therapy. Would DOE endorse the establishment of a national program focused on the full utilization of this technology?

Answer: Boron Neutron Capture Therapy (BNCT) has not yet been established as an accepted clinical procedure in this country. The Department of Energy has been engaged for the last three years in a national program of research aimed at establishing the safety and efficacy of BNCT. This program, centered at Brookhaven National Laboratory, but with important research activities taking place at Ohio State University, the State University of New York at Stony Brook, Massachusetts Institute of Technology, and New England Medical Center is expected to result in clinical testing of this therapeutic modality on patients with certain brain tumors in another two or three years. Prior to the clinical studies, it is necessary to establish the safety and efficacy of BNCT through animal studies and pilot clinical studies. When this has been achieved, it is expected that funding for more extensive clinical studies would be requested by the National Cancer Institute.

The INEL Power Burst Facility is one of the few reactors in the United States with an adequately high flux of neutrons to be used for this kind of radiation therapy. It may play an important role in the implementation and, possibly, in the National Cancer Institute clinical testing of BNCT.

QUESTIONS FROM SENATOR MCCLURE

High Temperature Gas Reactor (HTGR)

Question 19(a): The DOE FY88 budget request for the High Temperature Gas Reactor concept is $5 million--$15 million below the FY 87 appropriations, and $26 million below FY86 appropriations. The additional funding provided by Congress clearly demonstrates Congressional support for this advanced reactor concept. Why has DOE failed in the FY88 request to establish a minimum level of funding for a program which the Department has characterized as having greater near-term market potential than any other advanced reactor concepts?

Answer: High Temperature Gas Reactor (HTGR) development continues at a pace and funding level appropriate to its stage of development, scope of active international program interest, and market level interest. We will continue in FY 1988 to work on some key fuel technology issues through jointly-funded international programs. However, once an NRC licensability statement is obtained in 1987, the modular HTGR concept will have been adequately developed to permit its evaluation by the marketplace for central-station power generation. For that application, HTGR development should be pursued through private sector support and international collaboration. The funding levels we have assigned represent our best effort to align priorities with the potential of the different designs and to respond to current budget constraints.

The potential market for high temperature process heat applications is highly uncertain and, if it exists at all,

Answer 19(a)
(continued):

is far in the future. The Department considers it unnecessary for that purpose now or justify its program on the potential for nuclear-generated process heat.

DOE believes that the advanced light water reactor--not the HTGR--offers the best avenue to revitalize the nuclear option so that new additions to nuclear power production can be operating before the end of the century. Current efforts are focussed on obtaining NRC certification of at least two advanced light water reactor designs that could be ordered by 1991, without construction of any demonstration plants.

QUESTIONS FROM SENATOR MCCLURE

High Temperature Gas Reactor (HTGR)

Question 19(b): Please provide detail of the Government's HTGR role and associated funding that will support private sector and international efforts to demonstrate and commercialize a modular gas reactor?

Answer: DOE provides support for the modular HTGR and two liquid metal-cooled modular reactors to be reviewed for safety by the NRC. Current international programs that primarily involve the behavior of fuel and fission products as well as studies on graphite properties and high temperature materials will act as a useful bridge to future international efforts. The Government does not intend to provide direct support to commercialize a modular gas reactor.

QUESTIONS FROM SENATOR MCCLURE

High Temperature Gas Reactor (HTGR)

Question 19(c): Specifically, does DOE plan to provide support for a demonstration MHTGR project, and if so, how?

Answer: DOE has no current plans to provide support for a demonstration HTGR project.

QUESTIONS FROM SENATOR MCCLURE

Liquid Metal Reactor

Question 20: What support does DOE plan to provide for a Liquid Metal Reactor demonstration and commercialization effort?

Answer: DOE's current plans are to fund preliminary and detailed design efforts (first of a kind) for an Advanced LMR program and supporting R&D required to assure a sound basis for proceeding into construction. Cost-sharing will be a factor in this program.

DOE efforts are aimed at providing an economically competitive, licensable LMR design suitable for utility application. Beyond the design phase, DOE would anticipate a consortium of utilities, vendors, financial houses and/or international support to provide resources for construction of a demonstration plant which, after an initial period of operation, could be converted to a fully commercial privately-owned facility.

As detailed design proceeds, DOE anticipates proposals for a cost-shared first of a kind plant construction project. A possible role for DOE in the construction phase would be to provide a plant site on a Government reservation and to provide support in obtaining a plant license from NRC while material procurement and construction costs would be assumed by the private sector.

QUESTIONS FROM SENATOR MCCLURE

Question 21: Concerning the Defense Programs' (DP) eventual contribution to the Nuclear Waste Fund, the Department issued a Notice of Inquiry (NOI) last December, in which several options for calculating DP contributions were proposed.

a. How many comments on the NOI have been received to date? Briefly summarize the nature of the comments, as well as the source of these comments.

b. Does DOE intend to charge DP for interest on payments that should have been made to date into the Fund?

c. Will DOE now proceed with a rulemaking, similar to the procedure used to establish civilian waste disposal payments, as its next step in the allocation and payment of DP disposal costs?

d. Will any Congressional action be required to initiate DP contributions to the Waste Fund, other than the normal appropriations process?

e. When can Congress expect DP contributions into the Waste Fund to begin?

Answer: a. To date, 26 comments have been received. Thirteen of the comments received were from electric utilities; eight from representatives of state government; three from industry associations; and one each from an Indian nation and an individual.

There was a wide variety of comments. The following is a summary of the major comments received.

Answer 21 (cont'd)

Considerable support was expressed for the avoidance of cross-subsidization between civilian and defense waste generators.

Comments were evenly divided between those favoring the proposed cost-sharing methodology, "full cost recovery using sharing formulas," and one of the other two alternatives presented in the NOI, "cost shares proportional to avoided costs." A major electric utility industry association proposed a detailed alternative fee-determination method that makes use of the combined major features of these two proposed methodologies. In addition, many of the utilities were concerned that the civilian nuclear waste generation forecast used in the sample calculations in the NOI were too high--and that the defense waste quantity assumptions were too low--with the result that the defense share of the Office of Civilian Radioactive Waste Management's (OCRWM) estimated costs was unrealistically low.

Answer 21 (cont'd)

There was also opinion expressed that, in working towards defense waste fee payments, the Department should use a rulemaking procedure rather than use an NOI to solicit public comments. The procedure chosen was used because the payment of fees will require Congressional appropriations. The Department considered the NOI process preferable to the rulemaking process since the objective is to establish a basis for Departmental requests for appropriations, rather than the establishment of a generally applicable requirement.

b. As noted in the NOI, the total defense waste fee payment is to equal the present discounted value of the cost of defense high-level waste disposal by OCRWM. This means that the costs of delayed payment, in the form of interest, are considered to be an integral part of the cost of defense waste disposal and will be charged to the Department's Office of Defense Programs (ODP).

c. As noted in the response to a., the use of a rulemaking procedure appears to be inappropriate. Currently, public responses to the NOI are being reviewed and will be addressed in a

Answer 21 (cont'd)

Federal Register Notice identifying the selected fee calculation methodology.

Subsequent to that Notice, it is intended that a formal agreement will be executed between OCRWM and ODP, which would include an agreement as to the amount of funds which would be sought annually in the Department's budget request.

d. It is anticipated that funds for defense waste fee payments will be requested through the normal appropriations process. No further Congressional action is expected.

e. Once the Department has determined the fee calculation methodology and the amounts to be requested through the appropriations process, the Department will assess whether it is appropriate to request a change to the current budget or to seek funds in a subsequent budget request.

QUESTIONS FROM SENATOR McCLURE

Question 22: Concerning your position that, absent positive Congressional action on DOE's Mission Plan amendments, DOE would resume work according to the Nuclear Waste Policy Act, at what point in time will you conclude that no positive Congressional action will be forthcoming? Wouldn't it be more prudent, especially from a legal standpoint, to proceed according to the NWPA, unless and until Congress takes action to change the Act?

Answer: We hope that Congress will respond to the formal Mission Plan Amendment when it is submitted to Congress this summer. The draft Amendment, which has been provided to Congress at this time for information, is currently out for comment by the States and Affected Indian Tribes and other Federal agencies. Congress could choose to provide statutory guidance to the Department in the budget appropriation report for next fiscal year or by other means, however, some type of action by the full Congress would appear to be necessary in order to provide statutory direction.

The Department considers that the actions it took are appropriate and proper, and further, that the Mission Plan Amendment is an appropriate vehicle to advise and propose to Congress such actions. If Congress does not affirm the actions the Department has taken, we will go back and try to meet the objectives and the schedules in the Act although we believe some of the deadlines are unrealistic.

QUESTION FROM SENATOR McCLURE

SSC FUNDING

Question 23: In your outyear funding profile for the Super Conducting Super Collider (SSC) project, costs for this project by FY90 exceed the entire FY87 budget in high energy physics, and by FY94, these costs represent over 30% of the entire FY87 civilian energy R&D budget within DOE. How does the Department intend to fund such high expenditures without impacting the entire energy R&D portfolio within DOE?

Answer: Funding for the SSC in FY 1989 and beyond will require incremental funding above the present base activities. It is also our intention to seek maximum cost-sharing funding from other countries--as well as private industry, and state and local governments. There is much enthusiasm for the SSC worldwide and we are very optimistic about receiving substantial international and other participation. Together with the President's commitment to double the budget of the National Science Foundation, the SSC represents an unprecedented growth potential for United States science, so important for the future of the Nation.

QUESTIONS FROM SENATOR MCCLURE

TVA Demand Charges

Question 24: Could the Department elaborate further on the nature of its dispute with TVA over the demand charges that TVA bills to the uranium enrichment account? If discrepancies are resolved in DOE's favor, what are the potential savings that could be realized?

Answer: DOE Under Secretary Joseph F. Salgado wrote TVA Chairman Charles H. Dean, Jr., on February 12, 1987, advising him of the Department's concerns with the amount and composition of the demand charge payments being billed by TVA.

DOE believes that TVA is billing DOE for charges which DOE is not obligated to pay under the contract. The contract between DOE and TVA obligates the Department to pay demand charges associated with the costs TVA incurred to stand ready to deliver DOE's power requirements covered by the contract. In addition, DOE is charged by TVA for costs associated with both cancelled plants and nuclear plants under construction which will never be used to fulfill this contract.

As a result of the Under Secretary's February 12 letter, the DOE Assistant Secretary for Nuclear Energy and DOE General Counsel met with the TVA Chairman and key TVA officials on February 18, 1987, to discuss the situation and agreed to immediately initiate staff level discussions (now underway) to explore DOE's concerns in detail. It is premature to

Answer 24 (continued):	speculate on the potential savings that could be realized until these discussions are completed within the next several weeks.

QUESTIONS FROM SENATOR MCCLURE

AVLIS

Question 25(a): Less than two years ago, the Department made a decision to terminate all work on gaseous centrifuge enrichment, in favor of the continued development of the atomic vapor laser isotope separation (AVLIS) technology. Now the Department proposes no funds for AVLIS in their FY88 budget request. Your justification for zero funding is based on several assumptions: (1) that a privatization scheme will be developed to transfer this technology to the private sector, (2) that Congress will approve such a privatization scheme, (3) that the private sector will respond favorably to this scheme, and (4) that the privatization effort will be successfully completed before the end of FY87. Since even the first of these assumptions is a long way from realization let alone the remaining three assumptions, wouldn't it be more prudent for DOE to continue funding of AVLIS at some critical level, until and unless privatization efforts are realized?

Answer: The cost to complete AVLIS through the engineering demonstration phase exceeds $400 million, and the production demonstration phase would require additional funds. The uranium enrichment enterprise is besieged by a number of serious issues including resolution of the uranium miner's lawsuit, payment of the unrecovered Government investment in the enterprise to the Treasury and the schedule of payments, the potential for significant sales losses in complying with the Comprehensive Anti-Apartheid Act of 1986, and the payment of the multi-billion dollar demand charges to TVA for power not used. Given these issues and current budget constraints, the Department is not requesting funds in FY 1988 for further AVLIS development.

QUESTIONS FROM SENATOR MCCLURE

AVLIS

Question 25(b):	How much would an $80 million commitment to AVLIS in FY88 add to the cost per SWU for enriched uranium (assuming all other factors in the enrichment enterprise remain stable)?
Answer:	From a cost recovery standpoint, the inclusion of $80 million for AVLIS for FY 1988 alone would add only $0.60 per SWU because costs are averaged over a 10-year period. If AVLIS development was funded at $80 million per year for the entire 10-year cost recovery period, the price impact would be $6 per SWU.

Questions From Senator McClure

Patent Waiver Policy

Question 26a.: Does the Department anticipate making any major adjustments to its patent waiver policy, in light of the passage of Pub. L. 99-502, the Federal Technology Transfer Act of 1986?

Answer: It does not appear that Pub. L. 99-502 will have any direct effect on DOE's statutory waiver policy, as enunciated in 42 U.S.C. 5908 and 42 U.S.C. 2182. However, it is anticipated that DOE will make maximum use of the authorities provided in Pub. L. 99-502, including implementation of royalty-sharing and cash awards programs for Government-employee inventors at Government-operated Federal laboratories (GOGOs).

Questions From Senator McClure

Patent Waiver Policy

Question 26b.: What efforts are being made to streamline the Department's procedure for approval of patent waivers?

Answer: A proposed new regulation, 10 C.F.R. 785, has been drafted, which will provide for broad class patent waivers covering many inventions made under contracts, grants or cooperative agreements with DOE, and will serve to expedite requests for patent waivers. Another proposed regulation, 10 C.F.R. 784, has been drafted, which restates, in a clear and streamlined fashion, the process for expediting requests for all patent waivers.

In addition, under its current waiver policies, DOE has in recent years taken steps to streamline its patent waiver procedure by eliminating a layer of Headquarters review of waiver grants.

QUESTIONS FROM SENATOR MCCLURE

TECHNOLOGY TRANSFER

Question 26.c: What efforts are being made to encourage more interchange of ideas, personnel, and equipment between the DOE laboratories and the private sector?

Answer: The Department of Energy offers a broad range of technology transfer opportunities which encourage more interchange between DOE laboratories and the private sector.

Examples are:

(1) interchange of ideas - The laboratories widely communicate R&D results in refereed journals, lay publications, and workshops. Many involved programs consult with the private sector in the design of interchange programs. Many laboratories have senior advisory and peer review committees (with industry representation) which encourage interchange. All laboratories encourage joint technology projects with industry.

(2) interchange of personnel - The Department has a laboratory-industry technology exchange program which brings industry researchers into the laboratory to work with scientists and engineers on technology problems of interest to their company. The appointments are cost shared and generally last 6 months or more.

(3) interchange of equipment - The Department has a user facility program where private sector researchers may utilize Departmental facilities and equipment. Many joint projects between the laboratories and industry involve a government contribution, consisting of the use of equipment.

QUESTIONS FROM SENATOR MCCLURE

TECHNOLOGY TRANSFER

Question 26.d. How does the technology transfer office within Energy Research interact with the other departments within DOE to assure that each department fully utilizes its technology transfer options, and to assure that each department provides meaningful feedback to the Office of Energy Research concerning the effectiveness of their technology transfer efforts?

Answer: The Department's R&D laboratory technology transfer program is managed by the Office of Energy Research. The technology transfer interactions are decentralized to the laboratories under supportive policy direction from the Department. Each multiprogram laboratory must establish a technology transfer office and include technology transfer as part of its mission. One of the technology transfer office director's responsibilities is to provide a coordination point for the technology programs regarding technology transfer options. DOE overviews the effectiveness of technology transfer efforts with its laboratory appraisal process and annual reporting by each laboratory.

QUESTION FROM SENATOR MARK O. HATFIELD

COMMITTEE ON ENERGY & NATURAL RESOURCES

Question 27: On February 10, I received a reply from the Department concerning my request that the Department prepare an Environmental Impact Statement on the continued operation of the N Reactor at the Hanford Nuclear Reservation. The Department's reply merely stated that it would prepare an EIS, but only on the N Reactor's Safety Enhancement Program. Please tell the Committee why you have chosen to ignore a more comprehensive approach to an EIS which also would explore alternatives to the renovation and restart of the N Reactor.

a. Can you enlighten us as to why you still intend to resume operation of the N Reactor in July, 1987, even though your limited EIS could not possibly be completed in that period of time?

b. Is not your plan to spend $50 million on safety improvements to the N Reactor before the completion of an EIS a fiscally irresponsible action?

Answer: As indicated in the February 10, 1987, letter to you from Mary L. Walker, the Assistant Secretary for Environment, Safety and Health, the Department has reviewed the application of the National Environmental Policy Act (NEPA) to the proposed safety enhancement program for the N Reactor and has determined that an environmental impact statement (EIS) should be prepared. We intend to publish in the Federal Register a notice of intent to prepare such an EIS and initiate the public scoping process as soon as possible. The proposed action in this case which triggers the application of NEPA is the safety enhancement program. The proper focus of the EIS, therefore, should be the proposed safety program and alternatives to that program. The final scope of the EIS will be determined following receipt and consideration of public comments on the notice of intent, in accordance with the Council on Environmental Quality (CEQ) NEPA regulations.

Regarding the planned restart of N Reactor after the six-month stand down period, it should be noted that N Reactor is a currently operating production reactor. DOE is not proposing any action to alter that status. The fact that the reactor is currently in stand down for refueling, maintenance, and the implementation of elements of the safety enhancement program does not alter the status of the reactor. Moreover, it continues to be the Department's position that continued operation of the reactor does not pose an unacceptable risk to workers or the public. Unless significant new information is developed prior to the scheduled restart, it is the Department's intent to restart the reactor as previously announced.

During preparation of the EIS, the Department is proceeding with a number of improvements which do not conflict with the CEQ limitations on actions during the NEPA process, i.e., which do not have an adverse environmental impact or limit the choice of reasonable alternatives. Most of these activities are typical of ongoing reactor operations which were previously planned and involve the examination and testing of plant systems; revised analytical programs; administrative and training improvements; and routine maintenance. The expenditure of approximately $50 million for activities to increase the margin of safety for N Reactor operations is, in our view, a responsible action.

QUESTIONS FROM SENATOR HATFIELD
POWER MARKETING ADMINISTRATION DIVESTITURE

Question 28: The Administration's FY 1988 budget proposal once again advocates divestiture of the Power Marketing Administrations. Does the Department intend to have legislation introduced to accomplish this objective, or does it believe it has the administrative authority to do this?

Answer: We are pursuing actively the sale of Alaska Power Administration facilities to non-Federal ownership. Authorizing legislation will be needed before the actual sale can occur. We expect to accomplish the sale by the end of FY 1989, or sooner if possible.

As a first step toward divestiture of the remaining power marketing administrations, we will seek to study the possible divestiture of the Southeastern Power Administration. A general provision for inclusion in an appropriation bill was submitted to the Congress with the President's budget request. It appears at page II-21 of the Budget Appendix. We also have prepared a separate authorization, which I expect will be submitted to Congress within the next two weeks.

The results of the study will be reported to the Congress. No implementation of divestiture would begin until after subsequent Congressional authorization.

QUESTIONS FROM SENATOR HATFIELD

REPAYMENT REFORM

Question 28.a: I recall that last year you told Senator McClure and me that there would be no revision in the Power Marketing Administration's debt repayment schedules to the Federal Treasury without a legislative directive. While I am pleased that the FY 1988 budget does not contain such a provision, I am curious to know whether this policy will continue into the remaining years of this Administration, or if it is only a one year commitment.

Answer: I have indicated in the FY 1988 Congressional Budget presentation that revision to the PMA's debt repayment policy would not be administratively implemented. It is the Administration's policy in this budget to make this change legislatively. As I have testified, I personally firmly believe that these changes should be made legislatively.

QUESTIONS FROM SENATOR MARK O. HATFIELD

FY 1988 BUDGET HEARING COMMITTEE ON ENERGY & NATURAL RESOURCES

Question 29: Along with several of my colleagues on the Committee, I am alarmed at this nation's growing dependency on foreign oil. We now import 39.4 percent of our petroleum, a figure equal to our dependence prior to the oil shock of 1973-74. Experts have testified before the Committee that our dependence on foreign oil may rise to the 50 percent level by 1990. Please provide the Committee with plans the Department has for helping the nation cope with a serious disruption in supply at the current dependency level and at the 50 percent level.

Answer: In the event of an interruption in oil supplies, with United States oil imports at either the present or a higher level, the Administration would do the following:

(a) Allow the petroleum market to respond free of regulatory impediments while assuring adequate energy supplies for national security purposes.

(b) Develop the information needed to assess the magnitude and likely duration of the disruption. This will assist the Nation's businesses and private citizens in making informed decisions, and reduce any tendency to panic buying, which would only exacerbate the effects of a disruption.

(c) Draw down the Strategic Petroleum Reserve early and in sufficient amounts to reduce the economic impacts of the oil supply disruption.

(d) Coordinate a drawdown of strategic supplies with other members of the International Energy Agency to assure that the most effective use can be made of all free world strategic stocks. In an extreme situation where coordinated stockdraw and increased production from non-disrupted oil exporting countries were insufficient to mitigate the supply interruption, the United States would participate in the International Energy Program's emergency system to coordinate other responses and share oil supplies.

(e) Encourage fuel switching and other voluntary oil conservation measures.

(f) Enlist the support of industry, through advisory committees, the Executive Reserves, and other appropriate forms of industry involvement, in dealing with the emergency.

QUESTION FROM SENATOR HATFIELD

RATIONALE FOR SOLAR AND RENEWABLE ENERGY BUDGET

Question 30: In light of our growing dependency on foreign oil, could you provide me with the Department's rationale for its FY 1988 budget request for solar and other renewable energy programs? Congress appropriated about $146 million for FY 1987, but your proposal is only $93.5 million (an approximate 36 percent reduction).

Answer: In order to accomplish reduced Federal outlays, the Department has had to examine and prioritize every funding proposal. No area within the Department escaped the review process. The proposed reductions in solar and renewable energy were largely taken in projects supporting specific engineering development activities more appropriately the role of the private sector. These activities are viewed by the Department as lower priority and lower return to the industry as a whole than the basic and generic research being proposed for funding. The Department believes that the solar and renewable energy budget reflects a commitment to sustain a balanced effort among the renewable energy technology options in a manner which focusses expenditures on highest priority scientific and technical investigations.

QUESTIONS FROM SENATOR HATFIELD

RESTART OF PUREX

Question 31: Could you substantiate a report that came to my attention yesterday that the Department intends to restart the PUREX plant located at the Hanford Nuclear reservation within the next two weeks?

a. As you know, the Department shut down operations at the plant last October as a result of internal audits performed by Rockwell Hanford Operations which brought to light a plutonium handling violation and unsatisfactory safety controls. Please tell the Committee what changes in the plant's operation have been instituted in order to make the plant safe for operation, and how much this cost.

b. If the PUREX plant is restarted in the next two weeks, it will have taken the Department approximately four and a half months to accomplish its objectives. While I am thankful that changes have been instituted, it is my understanding that these corrective actions are minor in comparison with the problems for which the N Reactor was shut down in January. Please explain how the Department can possibly expect to complete the work on an EIS and the proposed $50 million of renovation on the N Reactor in six months (a month and a half longer than the PUREX plant).

Answer: The Plutonium Uranium Extraction Plant was started up on February 23, 1987.

a. The Department shut down processing operations at the Rockwell Hanford facility because of violations of operating specifications for prevention of nuclear criticality, not as a result of internal Rockwell Hanford Operations audits. The changes that have been instituted as a result of the investigations conducted following the shutdown include: major improvements in criticality control systems, procedures, and training; work authorization and configuration control systems, procedures, and training; procedures for communicating operational status and problems within the plant; procedures and practices for management assessment and knowledge of plant operations and conditions; and numerous other areas involving audit followup, other training, and maintenance activities. Since these activities were primarily procedural and administrative, no significant incremental cost is associated with these activities.

b. The purpose of the Department's action to extend the normal scheduled maintenance and refueling outage was to allow for the acceleration of certain previously scheduled safety enhancements to assure an even greater margin of safety in N Reactor operation. Not all of this will or needs to be completed before the reactor resumes operation. A program of work has been identified that will essentially be completed before the reactor resumes operation. These near term actions involve equipment testing; installation of improved monitoring equipment; actions to reduce worker exposures; installation of parts of hydrogen mitigation systems so that such systems can be installed when available; analytical work; administrative and training improvements; and extensive surveillance and examination activities. The Department expects that this work can be accomplished within a 6-month period. The Department does not plan to complete the environmental impact statement before restart of the reactor.

QUESTIONS FROM SENATOR DOMENICI

MINORITY HONORS TRAINING PROGRAM

Question 32: Please describe the accomplishments of this program. How many students has it served? How successful have graduates been at finding employment?

Answer: Since 1982, when the Minority Honors Training Program began, approximately 2,800 scholarships have been awarded to 1,250 financially needy minority honor students, training in energy-related technologies. As of February 6, 1987, over 80 percent of all graduates that have participated in this program have been placed into jobs.

Question 33: To what extent are we using DOE's facilities and expertise to supplement this program?

Answer: DOE facilities have not been used for this program. The DOE Program Manager has initiated contacts with many major energy industrials and has helped develop linkages with these industrials and with colleges in New Mexico and California.

Question 34: You propose to cut this program by 64 percent, phasing it down from 9 colleges to 2 colleges. Which colleges are you proposing to phase out of this program?

Answer: The colleges DOE proposes to phase out of the program include the following: Northern New Mexico Community

College, Hawaii Community College, Oklahoma State Tech, Anchorage Community College, Greenville Technical College, Bronx Community College, and Coahoma Jr. College.

Due to competing program resources and because this program has been in existence for five years, the Department made a programmatic decision to phase back this program.

Question 35: With this drastic cutback in financial assistance, where will these minority financially disadvantaged students get their training?

Answer: One potential source of financial assistance exists under Title II, Training Services for the Disadvantaged, of Public Law 97-300, Job Training Partnership Act. Additionally, other training programs may be found in the listing in the Catalog of Federal Domestic Assistance.

QUESTIONS FROM SENATOR MURKOWSKI

ENHANCED OIL RECOVERY

Question 36: The United States now imports nearly 40% of the oil we consume, with an ever-increasing share coming from the Middle East. In light of this, we should be making every effort to obtain the most from the oil resources that we have. The Department of Energy budget for research on methods to increase oil production from existing fields has decreased substantially in recent years from more than $29 million in FY 1986 to a request of $12 million in FY 1988. How does the Department of Energy justify such a drastic reduction at a time when we should be enhancing our existing resources? What is the Department of Energy's position with respect to researching ways to maximize our resources in existing oil fields?

Answer: The $29 million for FY 1986 appropriations was for all of the Petroleum subprograms: Advanced Process Technology, Enhanced Oil Recovery and Oil Shale. The major reductions between FY 1986 and the Department's FY 1988 request are in the Oil Shale and Advanced Process Technology subprograms, and the Tar Sands element of the Enhanced Oil Recovery subprogram. Because of fiscal contraints, and the fact that oil shale and tar sands technologies will not be economically viable for a number of years, emphasis was placed upon programs with the potential for a more immediate payoff, i.e., enhanced oil recovery techniques for heavy and light oil.

The Department places a high importance on research in higher yielding oil programs in existing fields. For this reason our FY 1988 request includes a new $5 million initiative on methods to maximize production from existing oil fields. The new initiative would include fundamental studies; geoscience research; novel concepts; small field tests; and technical analysis in support of oil producing states. In addition, the

Administration expects to submit a FY 1988 budget amendment of $7.0 million for the Cooperative R&D Ventures Pool Program which could include joint financing of extraction technologies.

QUESTIONS FROM SENATOR MURKOWSKI

ADVANCED PROCESS TECHNOLOGY

Question 37: Despite indications of a commitment to research methods to expand our reserves in the Arctic, including a Memorandum of Understanding between the Department of Energy and the University of Alaska, funding for Arctic and Offshore research has been reduced by 60% from the FY 1986 level to the FY 1988 request. How does the Department of Energy justify such a drastic cut?

Answer: The Department believes that the FY 1988 request for the Fossil Energy R&D program represents the proper balance between maintaining a strong research and development program while recognizing the serious national budget deficit problem. The $417,000 requested in FY 1988 for the Arctic and Offshore Research Program continues a viable and effective program at about the same funding level as enacted by Congress in FY 1987. In addition, the Administration expects to submit a FY 1988 budget amendment of $7.0 million for the Cooperative R&D Ventures Pool Program which could include joint financing of extraction technologies.

QUESTION FROM SENATOR NICKLES

Question 38:	If DOE gets the money in the summer of 1987, how much would it cost to increase the fill rate ceiling for the SPR from 100,000 barrels per day maximum today, to a new ceiling of 150,000 barrels per day during FY 88?
Answer:	Additional oil fill for FY 1988 would create incremental costs for capacity development, oil injection, and oil acquisition and transportation. With respect to facilities (capacity development and oil injection), a 100,000 barrels per day fill rate would increase FY 1988 costs by an estimated $2.9 million over the Department's request, primarily for oil injection. A 150,000 barrels per day rate would increase costs by a further $6.7 million (total of $9.6 million) for oil injection and completion of West Hackberry capacity development. These incremental costs would be borne in FY 1988 and could be financed out of additional FY 1988 appropriations. With respect to oil acquisition and transportation, using the price assumptions in the President's budget, the 100,000 barrels per day alternative would increase FY 1988 costs by $402 million above the Department's request. The 150,000 barrels per day alternative would increase costs by a further $310 million (total of $712 million). To ensure continuous delivery at these high rates, a portion of such incremental funds would need to be available in FY 1987 to permit the award of contracts for early FY 1988 deliveries. It should be noted that a fill rate of 150,000 barrels per day in FY 1988 would result in a cumulative fill of 589 million barrels in comparison to 600 million barrels of available storage capacity. Therefore, the fill rate in FY 1989, using underground storage caverns, would be limited to approximately 30 thousand barrels per day.

QUESTIONS FROM SENATOR HECHT

UNCONVENTIONAL GAS RECOVERY

Question 39: For the past several years we have witnessed a temporary surplus of natural gas, the so-called "gas bubble", but this cannot go on for much longer. In fact, when we see the drastic decline in oil and gas exploration in this country, it becomes obvious that sooner or later we will once again be facing gas shortages in America. The number of drill rigs is hovering around 700, down from 4,500 in 1981, and we are using up our natural gas reserves faster than they are being replaced. All the while, our dependence on imported foreign oil is increasing, making us more and more vulnerable to the market manipulations of OPEC.

In these circumstances, don't you think it would be wise from the standpoint of America's energy security to continue natural gas research projects such as the Western Tight Sands Program?

Answer: It is true that at the present time we are experiencing a "gas bubble" and that most experts believe that this oversupply situation will dissipate by the early 1990's. For this reason, the Department is continuing a program in Western Tight Gas Sands. The major multi-well field experiment is being completed in FY 1987 after having generated significant quantities of data concerning reservoir characteristics, well test procedures, stimulation techniques and influences of geology on gas production. In FY 1988 DOE now plans to compile and analyze this data with particular attention given towards identifying future research needs. This effort will be done in-house at DOE's Morgantown Energy Technology Center, and therefore does not require funding at the same level as in the past.

In addition, the Gas Research Institute (GRI) is spending about $25 million for unconventional gas resources. The GRI's program includes research efforts in western tight sands, eastern gas shales, coalbed methane, and gases from deep sources.

Finally, the Administration expects to submit a FY 1988 budget amendment of $7.0 million for the Cooperative R&D Ventures Pool Program which could include joint financing of extraction technologies, in which case Unconventional Gas Recovery projects could qualify as candidates for additional funding.

QUESTIONS FROM SENATOR HECHT

Question 40: With regard to fiscal 1988 funding for the high-level nuclear waste program, at what level of funding would it become impossible for the Energy Department to begin sinking shafts in connection with site characterization for the first repository sites?

Answer: We fully intend to begin exploratory shaft construction in FY 1988. This is the highest program priority, and if funding reductions occur, such reductions would be first allocated in other areas.

QUESTIONS FROM SENATOR HECHT

Question 41: What will be the effect of the new budget on Nevada?

Answer: The budget of $725 million in FY 1988 will allow the Nevada Nuclear Waste Site Investigation Project to proceed on the schedule indicated in the draft Mission Plan Amendment.

QUESTIONS FROM SENATOR EVANS

Surplus Facilities Management Program

Question 42: I understand that DOE will complete decommissioning of the Shippingport Atomic Power Station in FY'88. What activities are yet to be completed at the facility? Is Shippingport intended to be a model for future decommissioning of commercial reactors? What will be the total cost of decommissioning when it is completed.

Answer: The Shippingport Station Decommissioning Project (SSDP) is scheduled for completion in the second quarter of FY 1990. Progress to date has been significant, but the bulk of physical decommissioning is still to be done. The most significant activities remaining to be completed include (1) preparation for and removal of the reactor pressure vessel in one piece for barge shipment to the DOE low-level waste disposal site in Richland, Washington; (2) removal of all piping, equipment and reactor system components; (3) removal of all electrical power and control systems; (4) decontamination, demolition, and removal of all DOE-owned structures, including the large underground containment structures; (5) transport of all radioactive waste to the DOE disposal site; and (6) final site reclamation with an independent radiological survey.

The decommissioning project's primary purpose is to satisfy a legal and contractual agreement with the owner of the site, Duquesne Light Company, to decommission the DOE-owned nuclear

Answer 42 (continued): generating portion of the facility. However, in a directly analogous manner that Shippingport was the prototype for the first generation of nuclear facilities and the cornerstone for today's nuclear plants, its decommissioning demonstrate techniques and practices will be applicable to the first generation of commercial facilities when decommissioned. Also, just as today's large commercial facilities are not a result of one demonstration, so will their decommissioning be based on the experience of the first generation of decommissioned plants, Shippingport being only the first. Inclusion of SSDP as an important part of DOE's remedial action technology transfer program will help assure the availability of this experience to the commercial nuclear industry.

The total cost of the Shippingport decommissioning is estimated to be $98.3 million, including all preliminary DOE planning and environmental activities since 1979 and ongoing management support at the site office through project completion.

QUESTIONS FROM SENATOR EVANS

HANFORD WASTE VITRIFICATION PLANT

Question 43: In the Continuing Resolution last year, Congress increased the Department's FY 1987 budget request for the Hanford Waste Vitrification Plant (HWVP) by $6 million to $14.8 million in order to expedite the schedule for this program. How was this additional funding used? Why is the Department now requesting a reduction to $14.4 million when Congress has clearly gone on record as wanting to move forward as quickly as possible with construction and operation of this facility?

Answer: The $14.8 million in FY 1987 is research and development (R&D) funds of which $9.6 million was initially allocated to HWVP technical support. The increase is being used in the high-level waste R&D program supporting the HWVP project. The Liquid-Fed Ceramic Melter, a valuable developmental tool which can be operated at full levels of radioactivity, will receive $2.1 million in a joint effort between DOE's Assistant Secretary for Nuclear Energy and the Federal Republic of Germany. The remaining $3.1 million is being used in the HWVP technical support program to provide an improved basis for conceptual design of the facility.

The $14.4 million in FY 1988 consists of $6.9 million in R&D technical support funding and $7.5 million to begin the HWVP project. The reduction in the level of R&D support reflects the selection of basic technology for the design, construction, and initial phase of HWVP operations. The project funding is for design-only which will provide a high quality cost estimate and technology assessment before a full commitment to construction is made.

QUESTIONS FROM SENATOR EVANS

HANFORD HAZARDOUS WASTE ACTIVITIES

Question 44:	Is it the intention of the Department to comply with the terms of the Resource Conservation and Recovery Act (RCRA) at the Hanford site? If so, why is the Department only requesting $9 million when the most conservative estimates of what remedial actions are needed would require at least $20 million?
Answer:	The Department has initiated a wide range of actions to meet RCRA requirements at Hanford as well as all other DOE sites. The Richland Operations Office entered into a Consent Agreement and Compliance Order with the Washington State Department of Ecology on October 1, 1986, to formalize our intent to comply. In addition to the $9 million budgeted for the Surplus Facilities Management Program to decontaminate and decommission previously contaminated radioactive sites, conducted under the Department's Atomic Energy Act authority, the Department's Hazardous Waste and Remedial Actions Program within the Office of Defense Waste and Transportation Management (DWTM) is conducting planning and technology demonstrations to support a coordinated approach to the management of Defense Programs hazardous and mixed wastes. A preferred strategy for management of these wastes will be finalized during FY 1987. The planned FY 1988 RCRA and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) technology demonstrations, wherever conducted, will have broad applicability to remedial actions at Hanford.

In addition to funding proposed under DWTM, other activities in the FY 1988 Defense Programs request are intended to reduce the generation or release of hazardous effluents at the source, thereby achieving RCRA compliance. These are funded elsewhere in the Nuclear Materials request and include at Hanford: Lab and Chemical Sewer Upgrades; PUREX and UO_3 Process Condensate Improvements; and Plutonium Finishing Plant and UO_3 Waste Water Improvements.

QUESTIONS FROM SENATOR EVANS

COMPREHENSIVE TESTING OF LEACH RATES OF GROUT MATERIAL

Question 45: Does the Department intend to follow through on the commitment officials at the Hanford site made to the State of Washington that they would conduct comprehensive testing of leach rates of grout material DOE plans to mix with transuranic waste for on-site storage.

Answer: The Department of Energy/Richland has an ongoing program to leach test grout based on a nationally recognized standard, ANS 16.1. This leach testing is part of the overall work being done in waste feed characterization and grout formulation for the Hanford grout disposal program. The methods, procedures, and results of the leach testing of grout are discussed and provided to the State of Washington as part of Hanford's routine monthly grout technical meetings with the state.

The Hanford grout program will dispose of the decontaminated low-level waste fraction of the radioactive waste which is currently sent to underground tanks for storage. The grouted waste will contain transuranic radionuclides at concentrations far below that which would require management as transuranic waste.

Transuranic waste at Hanford is in the early stages of being certified as meeting acceptance criteria for the Waste Isolation Pilot Plant in New Mexico. Transuranic waste management activity is not connected with the grout disposal program.

QUESTIONS FROM SENATOR EVANS

FEDERAL ENERGY MANAGEMENT PROGRAM

Question 46: How many shared energy savings projects are in active stages of development or implementation? In which agencies can these projects be found?

Answer: Twelve projects are in various stages of development as follows:

- o Navy - 1 proposal due March 1987
  4 proposals to be advertised in FY 1987
- o Air Force - 3 proposals to be advertised in FY 1987
- o Army - 3 proposals to be advertised in FY 1987
- o Veterans Admin. - 1 proposal due March 1987

QUESTIONS FROM SENATOR EVANS

FEDERAL ENERGY MANAGEMENT PROGRAM

Question 47: How many shared energy savings projects are expected to produce actual energy savings in FY'87 and FY'88?

Answer: Because only two retrofit projects are likely be under contract during 1987, it is not anticipated that energy saving can be documented in 1987, and only modest savings are expected in 1988.

QUESTIONS FROM SENATOR EVANS

FEDERAL ENERGY MANAGEMENT PROGRAM

Question 48: Has the Department come up against any obstacles to the implementation of the shared energy savings concept which were not forseen by Congress? Is any Congressional action necessary to encourage the growth of the program?

Answer: While there are identified obstacles in engineering, contracting, financing, and administrative elements that impact the implementation of shared energy savings among Federal agencies, none are considered insurmountable and the need for further Congressional action to encourage growth of the program is not anticipated at this time.

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